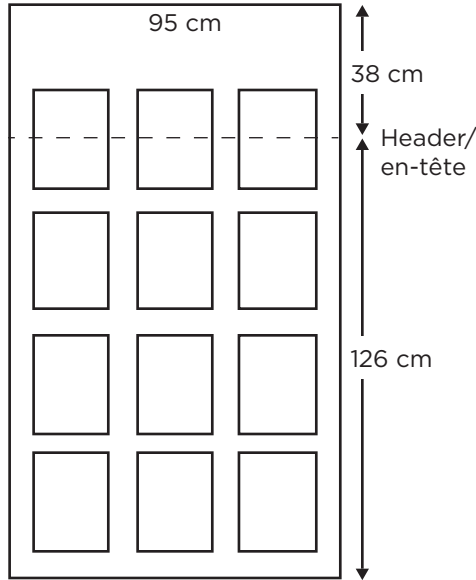


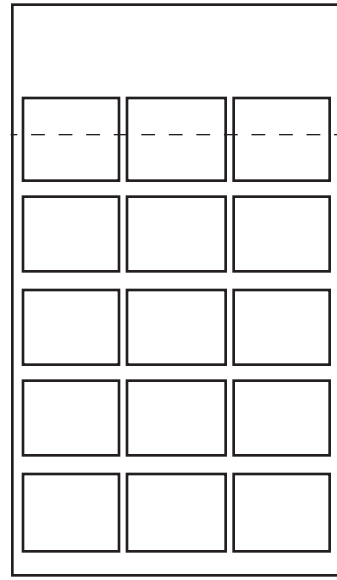
# Display Panels/Panneaux d'affichage

Each CWSF display includes two display panels with a pre-printed header that obscures the top of each panel when viewed from a distance. The diagrams below illustrate how standard paper pages fit on one panel when arranged as a grid. Finalists are encouraged to use more creativity when arranging their project materials.

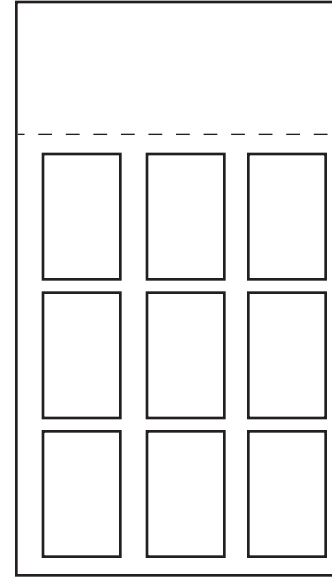
Chaque module d'affichage à l'ESPC comprend deux panneaux avec un en-tête préimprimé qui masque la partie supérieure de chaque panneau lorsqu'il est vu de loin. Les schémas ci-dessous illustrent comment des feuilles de papier de formats standards peuvent être apposées sur un panneau lorsqu'elles sont disposées sous forme de grille. On invite les finalistes à utiliser plus de créativité dans la disposition de leurs affiches.



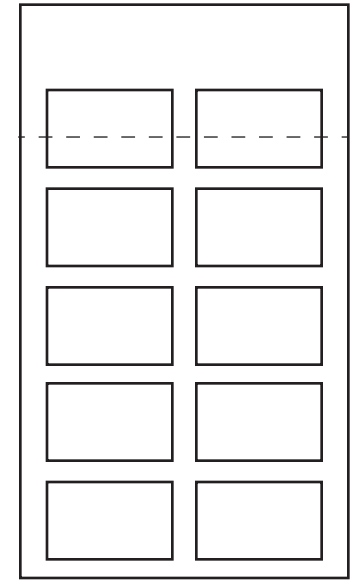
Letter/lettre (8.5 in/po x 11 in/po)



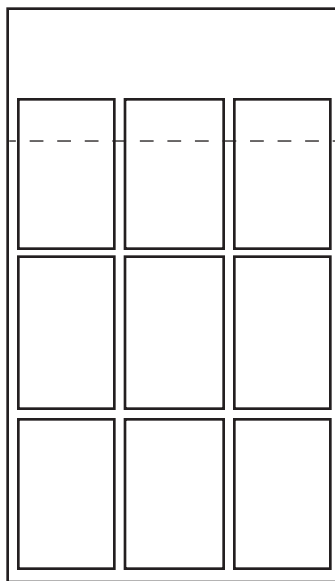
Letter/lettre (11 in/po x 8.5 in/po)



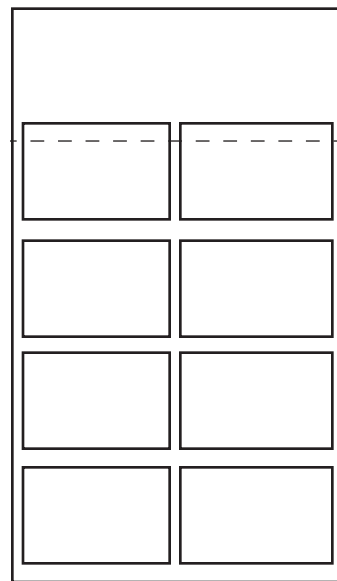
Legal/légal (8.5 in/po x 14 in/po)



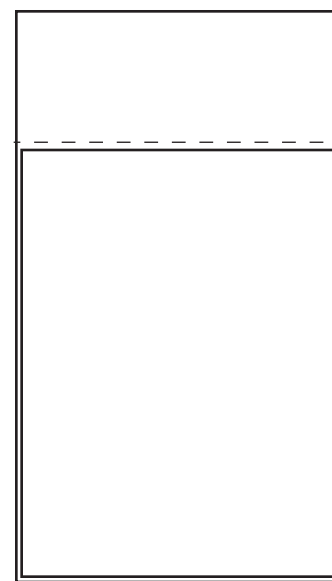
Legal/légal (14 in/po x 8.5 in/po)



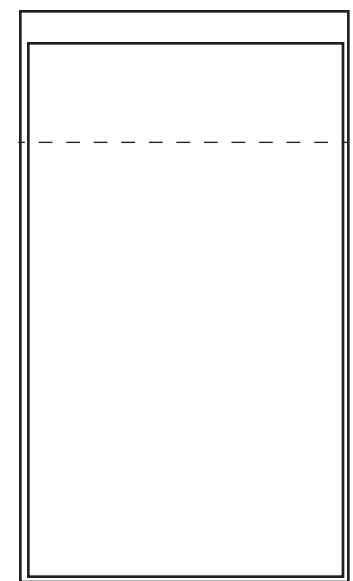
Tabloid/tabloïd (11 in/po x 17 in/po)



Tabloid/tabloïd (17 in/po x 11 in/po)



Poster/affiches (36 in/po x 48 in/po)



Poster/affiches (36 in/po x 60 in/po)



# Project Judging Form

## Peace River Science Fair

Project No. \_\_\_\_\_

Use this rubric to assign a Level to Parts A, B, and C for the project. In addition to the Level, please enter a rating from 0 to 9 that reflects the quality of the project and its strength relative to other projects you have assigned the same level.

PART A: SCIENTIFIC THOUGHT		
Experiment	Innovation	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 science, 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-behavioural data.
LEVEL 1		
Replicate a known experiment to confirm previous findings.	Build a model or device to duplicate existing technology or to demonstrate a well-known physical theory or social/behavioural intervention.	Existing published material is presented, unaccompanied by any analysis.
LEVEL 2		
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 behavioural interventions, existing physical theories or equipment, and justify them.	Existing published material is presented, accompanied by some modest analysis <b>and/or</b> a rudimentary study is undertaken that yields limited data that cannot support an analysis leading to meaningful results.
LEVEL 3		
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 behavioural 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. <b>Quantitative studies</b> should include appropriate analysis of some significant variable(s) using arithmetic, statistical, or graphical methods. <b>Qualitative and/or mixed methods studies</b> 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		
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, social/behavioural interventions 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.

PART B: ORIGINALITY & CREATIVITY			
LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
The project design is simple with little evidence of student imagination. It can be found in books or magazines.	The project design is simple with some evidence of student imagination. It uses common resources or equipment. The topic is a current or common one.	This imaginative project makes creative use of the 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.

PART C: COMMUNICATION			
The level is based on four elements: visual display, oral presentation, project report with background research, and logbook.			
LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Most or all of the four 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.	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.	All four 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.	All four elements are complete and exceed reasonable expectations of a student at this age/grade. The visual display is logical and self-explanatory, and the exhibit is 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 group project, both members contributed equitably and effectively to the presentation.



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## CWSF Project Displays

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**Category:** 3. Programs

**Policy Number:** 3.1.2.5

**Policy Section:** CWSF Participation

**Approved by:** National Science Fair Committee, Executive Director

**Date Approved:** Sat, Dec 13, 2003

**Date Effective:** Immediately

**Date Last Amended:** 2013-01-17

**Date of Next Review:** Sun, Jan 31, 2016

**Contact:** National Science Fair Committee Chair

### 1 Display Dimensions

1.1 Standardized two-panel displays will be provided to all Canada-Wide Science Fair participants by Youth Science Canada. The height of the display is 2.5m from the floor, with a triangular shelf provided at a standard table height of 0.76m (30 inches). Pre-printed headers will be provided for each participant on a 48cm tall header panel attached across the top of the display area. The approximate dimensions are as follows: each panel is 0.96m wide, with the height of the display area being a maximum of 1.74m, with 1.26m available for an unobstructed viewing area. The total display area of the panels is 3.34 m<sup>2</sup>, with an unobstructed viewing display area of 2.42 m<sup>2</sup>. The total area of the triangular shelf is 0.45 m<sup>2</sup>.

1.2 Presentation and prop material and all display equipment must fit entirely within the approximate display dimensions and restrictions, as follows:

1. Display panels: 1.92m wide (total, each one 0.96m), 1.74m high (1.26m high unobstructed).
2. Triangular display shelf: Maximum width of 1.37m, maximum depth of 0.7 m
3. No portion of the display shall project into any aisle.

1.3 A project may be granted additional space to display an innovation that exceeds the dimensions above by request from the Regional Coordinator to the zone representative. The final authority for approval rests with the NSFC Chair.

1.4 All project materials must fit in the assigned display space provided to the finalist. The finalist may not hang any portion of the project, nor affix any posters, graphs, etc. off the display board, or from or to the walls or ceilings of the building in which the fair is housed.

### 2 Display Materials

2.1 Presentation information including text, graphics, photographs and other data on the display panels must be printed on bond paper (laser, inkjet, or standard copier), or photographic paper. Laminated paper is permissible, but discouraged due to the environmental impact.

2.2 Construction paper, Bristol board and papers listed in 2.1 may be used to outline or border presentation information or to add small decorative elements to the display panels.

2.3 Youth Science Canada will provide suitable materials for affixing presentation materials on the display panels.

2.4 Papers presented on the exhibit table must be secured in a binder, Duo-tang, presentation folder, plastic sleeve or other appropriate enclosure.

2.5 Toxic adhesives shall not be applied to project materials inside any building at the Canada-Wide Science Fair.

2.6 The display panels must be returned to their original condition, with all project materials and adhesives removed upon project takedown.

### **3 Fire Safety**

3.1 Operation of an open flame, candle, torch or any other heating device is not permitted.

3.2 Smoking is not permitted in the exhibit area.

3.3 Packing material must be stored in the designated areas provided.

### **4 Electrical Safety**

4.1 Electrical cords shall have a 3-wire conductor with ground and must be CSA approved and in good repair.

4.2 Power bars, lighting and other electrical devices shall be CSA approved.

4.3 Any modification to an electrical device negates the CSA approval and that device must not be used.

4.4 Dry cells (Alkaline, NiCad, NiMH, Lilon, etc.) and sealed lead-acid batteries (gel cells) may be used. Wet cell batteries are not permitted.

4.5 Electrical devices constructed by finalists must comply with the following requirements to be approved for display. As they cannot be CSA approved, these devices may only be connected and operated during judging.

1. Electrical devices must be protected by a non-combustible enclosure.
2. An insulating grommet is required at the point where electrical service enters an enclosure.
3. Electrical devices shall use as low a voltage as possible.
4. The electric current must be limited so as not to cause any danger or discomfort if the terminals are touched.
5. A pilot light must be used to indicate when power is on.

### **5 Structural and Mechanical Safety**

5.1 Sharp edges or corners of prisms, mirrors, enclosures and glass or metal plates that may be contacted by the public must be removed or protected to prevent injury.

5.2 Dangerous moving parts, such as belts, gears, pulleys and blades, must be provided with a guard to prevent access to the moving parts.

5.3 An in-running nip hazard of any part of a motor, device or thing that may be a danger shall be guarded to prevent contact with the pinch point.

5.4 A certificate of safety inspection must be displayed if a project involves the construction or use of a boiler or pressure vessel with a capacity greater than 42.5 litres or operated at a pressure greater than 103 kilopascals. Evidence of inspection by an engineer with certification in boilers and pressure vessels should be displayed when the project involves any finalist-constructed pressure vessel, regardless of size or pressure. Such vessels may be displayed, but must not be pressurized at any time.

5.5 Compressed gas cylinders shall not be displayed.

5.6 Moving exhibits (e.g., radio-controlled vehicles, robots) shall be restricted to the display space. The Host Committee may, at its discretion, provide an area to safely demonstrate projects that require more than the regulation display space.

### **6 Chemical Safety**

6.1 The following materials shall not be displayed:

1. Flammable, toxic or dangerous chemicals.
2. Prescription drugs and over-the-counter medications.

6.2 Photographs or empty packages of prohibited materials may be displayed.

6.3 The display of chemicals is discouraged; however, other substances can be used to simulate chemicals for display purposes.

1. Table salt can be used to simulate many chemicals, such as ammonium nitrate.
2. Water can represent alcohol, ether and many other liquids.
3. Molasses can be used to simulate petroleum products.

6.4 When chemicals are simulated, they should be identified with the name of the substance they represent, preceded by the word "simulated." Any WHMIS labels (supplier or workplace) should be attached to show understanding of safe work practices.

6.5 The total quantity of liquids displayed at a project shall not exceed 1 litre. Photographs and/or video should be used to demonstrate processes requiring larger quantities of liquid.

## **7 Biohazards**

7.1 The following materials shall not be displayed:

1. Biological toxins.
2. Cell or tissue samples including blood and blood products, except on sealed microscope slides, which may be displayed.
3. Plants or plant tissue.
4. Soil containing organic material.
5. Cultures - photographs or simulated cultures may be used.

## **8 Human Subjects**

8.1 The project display may include pictures of participants if prior permission has been obtained. Projects dealing with forensic science topics must preserve the anonymity of any human victims, and project displays must avoid sensational or gratuitous, macabre images.

## **9 Animals and Animal Parts**

9.1 Live animals (microorganisms, non-vertebrate and vertebrate) shall not be displayed.

9.2 The only parts of vertebrate animals that may be displayed are those that are either naturally shed by an animal or parts properly prepared and preserved. For example, porcupine quills (safely contained), shed snake skin, feathers, tanned pelts and hides, antlers, hair samples, skeletons and skeletal parts are permissible, while cell and tissue samples are not, as indicated in 7.1 b).

9.3 Photographs of animals, animal parts or organs may be used on the display and in the Project Report; however, finalists and Regional Science Fair committees must be aware that other exhibitors and members of the public might find such photographs offensive. Finalists are encouraged to choose their photographs in accordance with the accepted norms of the community.

## **10 Firearms, Hazardous Materials and Equipment**

10.1 Firearms (even if appropriately locked), ammunition, dangerous goods or explosives shall not be displayed. The manner in which such materials were used in a project may be conveyed through text, photos, video, computers or simulation.

10.2 Images of humans or animals that have been injured by the use of firearms or explosives shall not be displayed. Such images are deemed unsuitable for general public viewing and do not contribute to the scientific value of a project.

10.3 X-ray or hazardous radiation-producing equipment may be displayed but must not be operated at any time.

10.4 Radioisotopes or compounds containing radioisotopes at activities above normal background shall not be displayed.

## **11 Display Equipment and Damage**

11.1 The finalist or his/her RSF must supply all presentation materials and display equipment.

11.2 It will be the finalist's responsibility to:

1. Ship or bring all light bulbs, switches, motors, fans, or other apparatus or material necessary for the final presentation of the project.
2. Assemble the project at the fair, in as short a time as is practicable (provisions cannot be made for the redesign,

completion, or rebuilding of projects at the fair).

3. Repair or replace anything in the project which fails during the fair (wherever possible, spare parts should be packed with the project).
4. Provide all specialized tools, equipment or material necessary for assembly.

11.3 Although every effort will be made to prevent damage to exhibits, Youth Science Canada, the Host Committee or other sponsoring organizations or co-operating groups will accept no responsibility for loss or damage to any exhibit or part thereof.

## **12 Infractions**

12.1 Any exhibit infraction shall be pointed out to the delegate responsible for that finalist. Required changes shall be the delegate's responsibility.

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**Source URL:** <http://youthscience.ca/cwsf-project-displays>