

YOUTH SCIENCE
FOUNDATION CANADA
FONDATION SCIENCES
JEUNESSE CANADA



JUDGE'S GUIDE

2001

CANADA-WIDE SCIENCE FAIR



KINGSTON MAY 12-20, 2001

www.cwsf2001.org



Thank you for volunteering to be a judge for the 2001 CWSF in Kingston. Your interest in our exhibitors and your willingness to act as a judge are both appreciated.

Although most judges have participated previously in Science Fairs, for some it is a new experience and we respectfully urge that when interviewing, judges remember that the Fair is not only a recognition of scientific achievement, it is also an educational and motivating experience. Most students indicate that they enjoy talking to the judges, and that in many cases, it is the high point of their experience at the Science Fair. As a general rule, the judge represents scientific authority to the student being evaluated. The manner in which questions are asked, the encouragement given, and the tone of the interview often provide incentive for continued effort by the student. Your time and effort in the judging process constitute perhaps one of the most valuable investments you can make in Canada's scientific future.

Even as the exhibitors learn from you, our past experience says you will see many new ideas and approaches in the projects. Many of these projects have a history across years and numerous lower Fairs. Be aware of the wonder in the youth who have worked so hard to get here and the wonder in yourself at their achievements.

We trust you will enjoy this challenging assignment. Your assistance is greatly appreciated by the exhibitors from across Canada.

David Wardlaw
CWSF 2001 Judge-in-Chief

Jack Candido
National Judge-in-Chief
Youth Science Foundation Canada

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JUDGES' REMINDERS

- Kindly read this manual in advance of the fair
- Examine the detailed Judging Schedule on the inside of the back cover.
- Judges' orientation session Monday **May 14** at **1900** hours (Dunning Auditorium)
- Arrival time on Tuesday **May 15** & Wednesday **May 16** is **0800** hours (Phys Ed Centre)
- Judges' Banquet Wednesday **May 16** at **1900** hours (Vimy Officers' Mess, CFB Kingston)
- Told us you would attend the banquet but now cannot? Please tell the staff at the Judges' Registration/Sign-in Desk
- Hand in ALL judging materials (forms, tally sheets, etc.) at the end of each day of judging
- At the end of judging on Tuesday May 15 (Divisional judging), please leave the 5-page project summaries on your team's table in the breakout area – these will be used on the 2nd day of judging.
- Do not discuss projects in or near the exhibit area (2 gymnasias in Phys Ed Centre) – confine discussions to the judges' breakout areas.
- For an exhibitor, one of the highlights of a science fair is his/her interactions with judges. It is primarily your responsibility to make this a positive and enjoyable experience for these young people.
- If you are dismayed by a project, do not reveal this through body language, tone of voice, lack of attention, or aggressive questioning.
- If an exhibitor has a query or concern about judging or another problem (e.g., needs to repair exhibit, not feeling well), direct her/him to the Exhibitor Assistance Team.

YOUTH SCIENCE FOUNDATION CANADA

History

The science fair movement came to Canada in 1959 to Winnipeg, Edmonton, Toronto, Montreal, Hamilton and Vancouver Island. The movement spread and two years later an association of national, professional, scientific and technical societies co-operated to establish the Canadian Science Fairs' Council which governed the operation of science fairs from 1959 to 1966.

The Youth Science Foundation was incorporated in 1966 to assist scientists and teachers, co-ordinate extra-curricular activities in science and technology for young Canadians, stimulate an interest in careers related to science and technology, and promote a better understanding of the role of these fields in national and international affairs.

Subsequent By-Law changes refined these aims until, in October 1993, the following vision, mission and objectives were approved by members. A new General By-Law and Supplementary Letters Patent were issued to reflect these revisions and to change the name of the organization to Youth Science Foundation Canada (YSF Canada).

Vision

The national organization for leadership in extra-curricular science and technology education.

Mission

To stimulate an interest in science and technology among young Canadians.

Objectives

- 1) To encourage more young Canadians to pursue career opportunities in science and technology.
- 2) To increase science literacy.

Youth Programs

- 1) National Science Fair Program
- 2) National Awards Program
- 3) International Program

THE CANADA-WIDE SCIENCE FAIR

Introduction

The Canada-Wide Science Fair (CWSF) is a national celebration of the adventures of over 400 young Canadians in science and technology. It is the premier event and pinnacle of the National Science Fair Program of Youth Science Foundation Canada.

Each year, more than 25,000 students enter their projects in Regional Science Fairs throughout Canada in search of recognition for their achievements and to win the right to attend the CWSF.

The primary goals of the CWSF are to introduce students with a common interest in science, to benchmark personal scientific and technological achievement against the achievement of peers and to enjoy a positive learning experience. A secondary goal is to expose elementary school children in the geographic area of the CWSF to positive role models – the best science and technology students in the country. Approximately 100 Regional Science Fairs in Canada affiliate with the Youth Science Foundation Canada each year. Affiliation registers a Regional Science Fair in the National Science Fair Program of YSF Canada and establishes eligibility for

winners to exhibit at the Canada-Wide Science Fair and to compete for associated awards.

The CWSF takes place in May in a different Canadian city each year. Regional Science Fairs affiliated with Youth Science Foundation Canada bid to hold the CWSF up to four years in advance of the event. The winning bid is approved by the Board of Directors of YSF Canada, and a contractual agreement is signed.

Judging is a component of this agreement. The hosting organization agrees to appoint a Judge-in-Chief to recruit a minimum of 200 Divisional and Special Awards judges with appropriate credentials. These judges must follow the judging procedures set forth by YSF Canada and provide YSF Canada with their selection of awards candidates ranked according to merit. These recommendations are essential to the National Awards Program. The 40th Canada-Wide Science Fair, CWSF 2001, was awarded to the Frontenac Lennox & Addington Fair, and is being held in Kingston, Ontario, May 12-20, 2001.

NATIONAL AWARDS PROGRAM

The National Awards Program was created as an incentive for excellence – a means of rewarding scientific and technological achievement by students participating in YSF Canada programs and of acknowledging the contribution of volunteers towards the successful achievement of the Foundation's vision, mission and objectives.

Awards are organized into components dedicated to meet specific needs. YSF Canada determines the criteria for eligibility, sets the judging standards, endorses the CWSF Judge-in-Chief, recruits award sponsors and organizes the presentation of awards.

Awards Components

There are currently three Awards Components in the Program:

- 1) **The RSF Awards** – provides a system of national awards to Regional Science Fairs affiliated with YSF Canada.
- 2) **The CWSF Awards** – provides the Grand Awards, Divisional Awards and the Special Awards associated with the Canada-Wide Science Fair.
- 3) **YSF Canada Distinguished Service Awards** – provides recognition by the YSF Canada Board of Directors to volunteers who have made outstanding contributions to the Foundation or its youth programs.

The Awards Ceremony

The CWSF Awards Ceremony is the premier national event of the Foundation's National Awards Program, just as the Canada-Wide Science Fair is the premier national event of the Foundation's National Science Fair Program.

Although the two events are synergistic in nature – one program provides the awards and the other the student recipients – it should be noted that they are distinct and separate events with different goals and different sponsors.

YSF Canada and its award sponsors will offer more than \$250,000 in CWSF Awards at the Awards Ceremony, CWSF 2001, in Kingston, Ontario.

JUDGING COMMITTEES & RESPONSIBILITIES

National Judge-in-Chief Jack Candido JCEnterprises Toronto, Ontario	Judge-in-Chief, CWSF 2001 David Wardlaw Dept. of Chemistry Queen's University	Deputy Judge-in-Chief, CWSF 2001 Janet McVittie College of Education University of Saskatchewan
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CWSF 2001 Judging Committee

Ms. Sue Blake	Faculty of Arts & Science, Queen's University	Registrar & Special Assistant
Dr. Stephen Brown	Chemistry, Queen's University	Grand Awards Representative
Dr. David Hanes	Physics, Queen's University	Special Awards Co-ordinator
Dr. Hugh Horton	Chemistry, Queen's University	Student Liaison
Dr. Éven Lemieux	DuPont Canada Inc.	Co-ordinator of Judging in French
Dr. Ole Nielsen	Mathematics & Statistics, Queen's University	Judges' pre-fair packages
Mr. Aubert Pereira	Technology Unit, St. Lawrence College	Hospitality
Dr. Phoebe Pereira	FRCOG, FACOG	Hospitality
Dr. Glenn Torrie	Chemistry, Royal Military College	Division Judging Coordinator
Dr. David Wardlaw	Chemistry, Queen's University	Judge-in-Chief
Dr. Colin Wortley	Electrical Engineering, Royal Military College	Facilities

Division

Division Chair

Biotechnology	Stephen Brown
Computing & Mathematical Sciences	Aubert Pereira
Earth & Environmental Sciences	Hugh Horton
Engineering	David Hanes
Life Sciences	Phoebe Pereira & Ole Nielsen
Physical Sciences	Glenn Torrie

CWSF 2001 Grand Awards Judging Committee

Jack Candido (Chairperson) National Judge-in-Chief JCEnterprises, Toronto, ON	Nicole Chiasson Science North Sudbury, ON	Patrick Whippey Department of Physics University of Western Ontario, London, ON
Christianne Wilhelmson Research Assistant Dept. of Earth and Ocean Sciences University of British Columbia	Om Malik Professor Emeritus University of Calgary	Stephen Brown Department of Chemistry Queen's University

CWSF 2001 Awards Committee (Committee of Appeal)

Jack Candido National Judge-in-Chief	Marilyn Webster, Chairperson National Science Fair Committee
David Wardlaw CWSF 2001 Judge-in-Chief	Louis Silcox, President Youth Science Foundation Canada Board of Directors
Patrick Whippey National Deputy Judge-in-Chief	

CWSF JUDGES

Grand Awards Judges

Grand Awards judging will be done by the CWSF 2001 Grand Awards Judging Committee. These judges will rely on the relative rankings of candidates as selected by Divisional Awards Judges to pick the best of the best to meet national and international sponsorship needs. They will also rely on the recommendations of the Divisional Judges for Best of Fair, Best Junior, Intermediate and Senior Awards

Special Awards Judges

The organizations that sponsor Special Awards are encouraged to provide the necessary judges. YSF Canada is responsible for co-ordinating the Special Awards Judges and arranges with the CWSF 2001 Judge-in-Chief for supplementary Special Awards Judges, as required

Divisional Awards Judges

Approximately 250 judges review over 300 exhibits in six divisions. Judging is by teams selected and co-ordinated by Division Chairs. The six Division Chairs report the recommendations of their team to the CWSF 2001 Judge-in-Chief.

All judges must have appropriate academic qualifications and/or appropriate practical experience. Judges may include university, community college, and school faculty, industrial scientists, engineers, technologists and representatives of government laboratories, research centres and agencies, and medical researchers

JUDGING GUIDELINES

- 1) Examine the quality of the student's work, and how well the student understands the project and area of study. The physical display is secondary to the student's knowledge of the research.
- 2) Look for evidence of laboratory, field or theoretical work, not just library research or gadgeteering.
- 3) Keep in mind that projects are elementary and high-school levels, not Ph.D. or professional levels. Sometimes judges go to extremes, giving students far more credit than they deserve or not enough because the project is not in the Nobel Prize category.
- 4) Compare projects only with those in the same competition, and not with projects seen elsewhere under other circumstances.
- 5) Judges should keep in mind that the Fair is not only a competition, but also an educational and motivating experience for students. For most of them, the high points of the Fair experience are their interviews with the judges.
- 6) As a general rule, judges represent professional authority to students. For this reason, judges should use an encouraging tone when asking questions, offering suggestions or giving constructive criticism. A judge should never criticize, treat lightly, or display boredom toward projects they personally consider unimportant. Always give credit to the student for having expended the effort to present a project.
- 7) Please be discreet when discussing winners or making critical comments in elevators, restaurants, or elsewhere about judging, as students or adult escorts might overhear. The results are confidential and are embargoed until they are announced at the Awards Ceremony. The Host Committee, the Awards Committee, and the individual judges for Special Awards are responsible for ensuring that all items associated with judging, with the exception of the official results certification, are destroyed at the conclusion of judging.

THE CWSF AWARDS - 2001

Grand Awards

The Grand Awards respond to YSF Canada's need to identify a pool of the best science projects in Canada, as represented at the CWSF, to fulfil a growing need for national recognition and international competition.

SPONSOR	AWARD
Alberta Energy Company Ltd.	Best Overall Project in the Fair - \$7,500
Rockwell Automation Canada Inc.	Best Senior Project – \$2,500 Best Intermediate Project – \$2,500 Best Junior Project – \$2,500

Divisional Awards

There are currently six major divisions for student exhibits at the Canada-Wide Science Fair. Each division is further divided into categories of Junior, Intermediate and Senior (as per page 10) based on the grade each student is attending. Divisional Awards consist of cash prizes and medals.

DIVISION	SPONSOR
Biotechnology	Canada's Research-Based Pharmaceutical Companies (Rx&D)
Computing and Mathematical Sciences	To be announced
Earth and Environmental Sciences	Petro-Canada
Engineering	To be announced
Life Sciences	Shell Canada Limited
Physical Sciences	Dow Chemical Canada Inc.

Description of the Six Divisions

A **Biotechnology** project is the application of knowledge of biological systems to solve a problem, create a product or provide a service. Biotechnology projects will fall into one of three subject fields: crop development, animal science, and microbials.

Within Biotechnology, crop development underscores that the interest is not in just plants, but in plants which are involved in agricultural, horticultural or silvicultural (forestry) production. Projects in this area may investigate problems of herbicide tolerance, spacing, cultivation, irrigation, effect of soil variation, hybridization, etc.

Animal science projects would pertain to animals involved in agriculture and aquaculture, those domesticated as pets, or for sport, as well as projects where humans are participating in wild animals' lives, perhaps through habitat revitalisation, population management, or harvesting. All projects involving animals demand careful planning with respect to YSF Canada regulations. Possible topics include

enhancement of animal production, reproductive technologies, genetics and transgenics, animal health, housing, training and interactions.

Microbial projects consider how the microbials are affecting productivity in agriculture, horticulture and forestry. Possible topics include plant growth-promoting rhizobacteria, biological weed and fungal control, bio-fuel cells, etc.

Projects which focus on the acquisition of knowledge about how something lives should be categorized as Life Science, not Biotechnology. The distinction is similar to that between Physical Science projects and Engineering projects. In both cases projects in the latter division deal with an application of knowledge to solve a problem. Often the discriminating factor is in the student's conceptualisation of the project. There will be situations where the choice is not clear.

A **Computing and Mathematical Sciences** project may be an engineering-type project focussed on hardware or software development. This division also includes projects that deal with mathematical models or which have used mathematics to solve theoretical problems.

Projects that use computers just to store and manipulate data should be exhibited in the division suggested by the nature of the data. If the focus is an innovative way to use the computer or mathematical model, then the data is secondary and the project should be entered in Computing and Mathematical Sciences.

An **Earth & Environmental Sciences** project has as its focus either a topic relating to planetary processes or the relationships of organisms to those processes, or between or among organisms.

involve studies of biotic and/or abiotic factors in an environment where such studies enhance our understanding of biological relationships and abiotic cycles.

Projects in this division can include the pursuit of knowledge in any of the following scientific disciplines: Geology, Mineralogy, Physiography, Oceanography, Limnology, Climatology, Seismology, Geography, and Ecology. Earth and Environmental science involves the study of pollution (air, water, and land) its sources and its control. It can also

Studies dealing with resource management or sustainable development would fall into this category. Examples of such studies might include capture/recapture studies for estimation of population densities, determination of bioproductivity in a specific ecosystem or niche, studies of plate tectonics and examination of mineral cycles (e.g. Salt mills in the oceans).

An **Engineering** project applies physical science knowledge to solve a problem or achieve a purpose.

the community, many projects focus on just the development phase.

Engineering projects investigate the utility of innovations and inventions. Although a complete engineering project will include an outline of the need, the development of the innovation and some work on introducing the innovation to

Engineering projects can focus on a new process, or a new product. A study of Bernoulli's principle would be Physical Science, while the application of such a principle to aerodynamics and wing design would be Engineering.

A **Life Sciences** project examines some aspect of the life or life style of an organism.

Physical Science. To determine the best placement, consider whether the exhibitor's intent was to study the chemistry of the process, or the role of the process in the life of the animal (eating, production of enzymes, handling of waste, etc.) Does the exhibitor's view of the problem extend to include the organism?

Life Science projects include botany and zoology, as well as psychology and kinesiology. Examining plant growth, animal behaviour, human perception or the mechanics of human movement are examples of Life Science. Some phenomenon, such as digestion, are both Life Science and

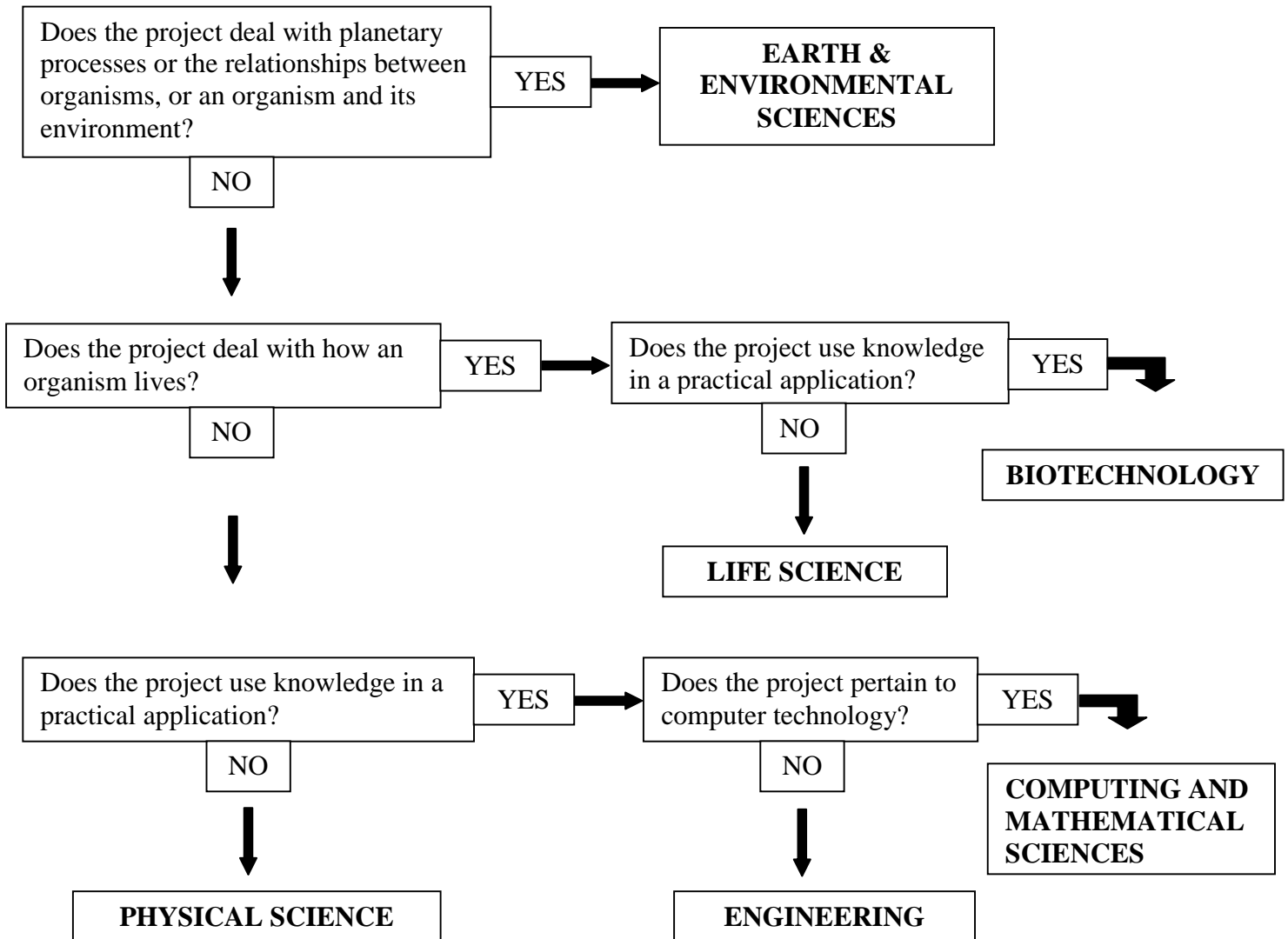
A **Physical Sciences** project studies an abiotic phenomenon in order to understand the relation of identified factors, perhaps including a cause and effect relationship.

For example, experimenting to find "Which Materials Absorb Oil Best?" is physical science, although there is an implied application of the results. On the other hand, "Which Materials Can Absorb Oil From an Oil Spill?" might be the title of a project in which the emphasis is on an application and which is therefore classified as engineering. Determining the exhibitor's intent should help clarify the appropriate classification.

Physical Science projects study the relationship of factors in fields such as Physics, Chemistry, Astronomy, Geology, Oceanography, Mathematics and Meteorology.

The Chief Judge may recommend a change of division to allow for the fairest adjudication of the students' work but the final decision regarding the division placement rests with the student exhibitors and their regional delegate(s).

Flowchart to assist in selecting project division



CWSF EXHIBITS POLICY

Layout

The exhibit area will be laid out so that exhibits in a particular division will be together. A judges' discussion area will be located separate from the exhibit area.

Set-up

More than 300 exhibits are expected to arrive on Saturday, May 12 and Sunday, May 13. Exhibit set-up will begin on Sunday and must be completed by Monday at 5:00 PM.

Display and Safety

All exhibits will be checked by the CWSF Display and Safety Committee. Final checks and clearances will be completed before judging begins.

Divisional Placement

Although the Judging Committee CWSF 2001 Judge-in-Chief may recommend a specific division placement for an exhibit based on divisional criteria, the final decision regarding the division placement rests with the student exhibitor(s) and their regional delegate.

The placement of an exhibit in the wrong division is likely to be the result of imprecise divisional criteria and may involve the role of a computer. The reasons for concern should be stated clearly to the student and the delegate. In the end, the student should be given the benefit of the doubt.

However, should the Judging Committee be concerned that final placement violates the spirit of the divisional awards, i.e. placement is for the sole purpose of circumventing the judging process to reduce competition through participation in a weaker division, then the CWSF 2001 Judge-in-Chief may refer the matter to the Awards Committee.

TYPES OF SCIENCE FAIR PROJECTS

The judging of scientific thought requires special attention. One important consideration is the existence of different **types** of projects. The most common types of science fair projects are Experiments, Studies and Innovations; some projects will contain elements of two or three project types. Projects of each type are equally capable of winning top awards at the Fair, providing they meet the necessary criteria.

An Experiment

This is traditionally the most common type of science fair project in the life or physical sciences divisions.

Projects of this type should involve an original scientific experiment to test a specific hypothesis in which the student recognizes and controls all significant competing variables and demonstrates excellent collection, analysis, and presentation of data. The judge should also realize that it is not essential that the project produce a significant positive finding. It is the design rather than the results that is most important.

A Study

This type of project involves the collection and analysis of data from other sources to reveal evidence of a fact, situation or pattern of scientific interest. This could include a study of cause and effect relationships or theoretical investigations of scientific data. The data may be obtained from other sources rather than being collected by the student.

Projects in this area must be able to demonstrate that the methods originally used to obtain the data are based on sound scientific techniques and controls and demonstrate insightful analysis.

An Innovation

A project of this type would involve the development and evaluation of new devices, models, techniques or approaches in fields such as technology, engineering or computers (both software and hardware).

Projects should integrate several technologies, inventions or designs and construct an original innovative technological system that will have commercial application and/or human benefit. It must demonstrate how the innovation was designed or developed on the basis of a sound understanding of the scientific, engineering or technological principles involved.

DIVISIONAL AWARDS JUDGING

Judges are assigned up to eight exhibits to evaluate within one particular division and category (e.g. Junior Physical Sciences or Intermediate Life Sciences). Judging is performed on a relative basis, so judges should be aware that the project is being judged with others in the same category and division.

Each exhibit will be evaluated five times, i.e. five judges evaluate an individual project. Judges are to sign the signature form on the exhibitor's display during this round of judging. Although judges view each project individually, they communicate with other members of their judging team to determine the final ranking.

There is a common judging form (the Judge's Marking Sheet, pages 12 and 13) that applies to projects of all types: Study, Experiment and Innovation (see the previous page for descriptions). Separate columns provide the descriptors for the three types of projects. Careful examination of the forms provides an explanation of the different types and levels of scientific thought and presentation which may assist the judge in ranking and assigning marks to a project.

Each form is divided into the following areas (totalling 100 marks):

Part A	Scientific Thought	45 marks
Part B	Original Creativity	25 marks
Part C	Display – Skill	10 marks
	– Dramatic Value	10 marks
Part D	Project Summary	10 marks

For each of these areas, remarks or questions are listed on the judging forms. Such remarks are supplied only as a guide, and the judge should not feel obliged to follow them rigorously, as not all projects fit precisely fit this profile. Judges should use their discretion in assigning the marks for the major topic areas given above. When the judging is completed, judges meet to determine project rankings within a particular division and category.

Judging Sequence

Prior to the Fair

Along with this manual each judge should receive a set of Project Summaries prior to the fair. Judges are asked to evaluate the Project Summaries in advance of the fair according to the criteria on the Judge's Marking Sheet – Side B (see page 12).

Monday evening

All judges are to observe their assigned projects on Monday evening when the students are absent. This is an opportunity to familiarize yourself with the projects in order to make the best use of the interview time on Tuesday.

Tuesday

- 1) Each judge will independently evaluate their assigned exhibits with the students present. Every 30 minutes, judges are to move to another project. The interview should last not more than 20 minutes, allowing 10 minutes to fill out the Marking Sheet in private. All students should be treated fairly in the amount of time given to them for interviews.

The judging interview can be a traumatic event, especially for young, first-time participants. Most students enjoy the chance to discuss their work with someone who is both knowledgeable and sympathetic. Remember to be encouraging and positive in your dealings with the students. These are potentially tomorrow's scientists, and the contact they have with you may be the spark that excites them into continuation of their studies in science.

Please do not give students suggestions for improving or extending their project during the interview, as this will affect how their work will be evaluated by the other judges. Remember, other judges have to try to determine what the student knows, not what you, as an expert, have added.

- 2) The five judges who have evaluated a set of projects meet to rank their projects and select the ones that go on to the next stage. Judges must complete this portion of the judging promptly after the interview stage.
- 3) For each project, the team of judges is expected to prepare a Judges' Evaluation Form incorporating the comments of all five judges. Please make **positive** and **constructive** comments which will encourage students to improve their exhibits or suggest other avenues of research. These evaluation forms will be returned to the students later during the Fair. Marking Sheets and Judges Evaluation Forms will be collected by the Team Captain(s).
- 4) After a dinner break, the Captains of teams in a given category-division (e.g., Junior Engineering) will meet to choose the medal winners and honourable mentions, guided by the project rankings produced by each team. The medal winners and honourable mention assignments must be completed on Tuesday evening.

Medals	Divisions					
	Biotechnology	Computing and Mathematical Sciences	Engineering	Life Sciences	Physical Sciences	Earth & Environmental Sciences
Categories						
Junior (Grades 7 & 8; Secondary I & II in Quebec)	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions
Intermediate (Grades 9 & 10; Secondary III & IV in Quebec)	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions
Senior (Grades 11 & 12; Secondary V, CÉGEP I in Quebec)	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions	2 Gold 3 Silver 4 Bronze 10 Honourable Mentions

NOTE: The numbers of medals and Honourable Mentions are the maximum. A lesser number may be awarded if, in the opinion of the CWSF 2001 Judge-in-Chief, available projects do not merit awarding the maximum number.

Exhibitor Support

Volunteers will be on the floor to help students resolve any issues associated with judging. Occasionally, problems of the following kind can occur:

- a) my 10:00 A.M. judge did not show...
- b) my computer just failed and it will cost me a medal if I can't get it fixed...
- c)

The support team will be trained in how to solve such problems so that the student can face the next judge with confidence.

Judge's Marking Sheet – Side A

PART A: SCIENTIFIC THOUGHT - 45 %			Mark
Experiment An investigation undertaken to test a scientific hypothesis experimentally. The variables, if identified, are controlled to some extent.	Innovation The development and evaluation of innovative devices, models or techniques or approaches in technology, engineering or computers (hardware or software).	Study A collection and analysis of data to reveal evidence of a fact or a situation of scientific interest. It could include a study of cause and effect or theoretical investigations of scientific data.	
Level 1 (low) Mark Range 5 to 15			
Duplicate a known experiment to confirm the hypothesis. The hypothesis is totally predictable.	Build models (devices) to duplicate existing technology.	Study existing printed material related to the basic issue.	
Level 2 (fair) Mark Range 15 to 25			
Extend a known experiment through modification of procedures, data gathering, and application.	Make improvements to or demonstrate new applications for existing technological systems or equipment and justify them.	Study material collected through a compilation of existing data and through personal observations. Display attempts to address a specific issue.	
Level 3 (good) Mark Range 25 to 35			
Devise and carry out an original experiment. Identify and control some of the significant variables. Carry out an analysis using graphs or simple statistics.	Design and build innovative technology or provide adaptations to existing technology that will have human benefit and/or economic applications.	Carry out a study based on observations and literary research illustrating various options for dealing with a relevant issue. Include appropriate analysis (arithmetic, statistical, or graphical) of some significant variable(s).	
Level 4 (excellent) Mark Range 35 to 45			
Devise and carry out original experimental research which attempts to control or investigate most significant variables. Include statistical analysis in the treatment of data.	Integrate several technologies, inventions or designs and construct an innovative technological system that will have human and/or commercial benefit.	Correlate information from a variety of significant sources which may illustrate cause and effect or original solutions to current problems through synthesis. Identify significant variable(s) with an in-depth statistical analysis of data.	

PART B: ORIGINAL CREATIVITY - 25%			
Rank 1 (low) Mark Range 5 to 10	Rank 2 (fair) Mark Range 10 to 15	Rank 3 (good) Mark Range 15 to 20	Rank 4 (excellent) Mark Range 20 to 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 project.
Mark			

Judge's Marking Sheet – Side B

Paste Label here

PART C: DISPLAY
Maximum 20 Marks

1. Skill (Maximum 10 Marks)	Max	Mark
Necessary scientific skill shown.	3	
Exhibit well constructed.	3	
Material prepared independently.	2	
Judge's discretion.	2	
2. Dramatic Value (Max 10 Marks)		
Layout logical and self-explanatory.	3	
Exhibit attractive.	3	
Clear logical enthusiastic presentation.	3	
Judge's discretion.	1	
Total Display Mark	20	

PART D: PROJECT SUMMARY
Maximum 10 Marks

1. Information	Max	Mark
Is all the required information provided?	3	
Is the information in the specified format?	1	
Is the information presented clearly with continuity?	2	
Does the summary accurately reflect the project?	2	
2. Presentation		
Neatness, grammar, spelling in the report.	2	
Total Project Summary Mark	10	

Total Marks		
Part A: Scientific Thought (from page 1).	45	
Part B: Original Creativity (from page 1).	25	
Part C: Display.	20	
Part D: Project Summary.	10	
Total Mark awarded to this exhibit.	100	

FEEDBACK FOR THE EXHIBITOR(S)	
Strengths	_____
Recommendations	_____
Judge's Name (Please Print!)	Judge's Signature

Use this form to give a mark to each exhibit, and to assist you in ranking the exhibits assigned to you. This mark will not be used in subsequent rounds of judging. **Return this form to the Captain of your Judging Team.**

SPECIAL AWARDS JUDGING

Wednesday – Day 2

Special Awards are made available by corporate sponsorship recruited by YSF Canada to reflect the various special interests of a company or profession. These awards include cash prizes, scholarships, summer employment, etc., and are given to exhibits meeting criteria defined by the sponsors and displaying excellence in a wide range of specific topics. The criteria for these awards are listed on pages 16 to 20.

Prior to the fair, all exhibitors are given the opportunity to self-nominate for up to seven (7) Special Awards. These self-nominations are reviewed *prior to* Special Awards judging to ensure that each project falls in the allowed category (Junior, Intermediate, Senior) and appears to meet any sponsor-stipulated criteria.

A small number of Special Awards attract a very large number of self-nominations. In order to manage the overall judging for such awards, an initial screening process takes place during the regular Divisional judging on Tuesday. Divisional Judges' assessments of the overall scientific merit of each project, as formed during the normal judging process that day, are used to prepare a shorter list of eligible projects for these few heavily-subscribed Special Awards. Only the short-listed projects advance to subsequent rounds of evaluation by the Special Awards Judges on Wednesday.

Notes:

- 1) Special Awards judging is normally done by a team of judges consisting of representative(s) of the Special Awards sponsors and judges assigned by the Judging Committee. In some instances, sponsors have requested that judges be appointed to make the selection on their behalf.
- 2) The Special Awards Judges will receive information about the criteria, any special considerations, the names of other judges on their team, and a complete list of their assigned exhibits by advance mailing or at the registration desk. In addition, judging teams will be briefed by their team captains prior to exhibitor interviews.
- 3) Judges will then examine the exhibits on their lists, keeping the Special Award criteria in mind. Any given Special Award may have conditions that must be met (e.g. single senior), so judges should start the interview by ensuring that the project is eligible and that the conditions were not misunderstood.
- 4) At past fairs, trips or job opportunities have occasionally been awarded to students who subsequently refused the prizes. Although a student may have self-nominated on his/her registration form, circumstances may have changed (e.g. a summer job commitment) and the student may no longer want to be considered for the award. When judging for a trip or employment opportunity, first ask the student if he/she would still accept the prize.
- 5) It is recommended that you limit your time at each exhibit to ten (10) minutes. In any case, you must not spend more than fifteen (15) minutes at any exhibit, as this prevents other judges from adjudicating the project. Judges are asked to sign the signature form on the exhibitor's display for the appropriate Special Award.
- 6) After interviewing the exhibitors, teams of Special Awards judges meet to agree upon a rank-ordered list of the top five projects based on the Special Awards criteria. If there is more than one judge for a Special Award, the team of judges will confer *without the students present* to rank the projects. If any rankings at the top are particularly close, or if the sponsor-appointed judge wishes that a specific exhibit be awarded the prize, a note to that effect should be made. Special Awards sponsors may supply their own judges and their decisions are generally respected.
- 7) There are a few Special Awards with no particularly restrictive criteria, and these may be given out to particularly deserving projects at the discretion of the Awards Committee.

GRAND AWARDS

CWSF Grand Awards are presented for the Best Junior, Best Intermediate, Best Senior, and overall Best-of-Fair projects.

GRAND AWARDS JUDGING

Grand Awards Judging will occur in parallel with special Awards Judging and is the responsibility of a special national panel of YSF Canada judges.

Grand Awards are presented for the Best-of-Fair, Best Senior, Best Intermediate and Best Junior projects. The gold medallists from the divisional judging process are automatic candidates for these awards. An attempt is made to judge these projects so that the exhibitors do not realize that they are being considered for a Grand Award.

After reading the project summaries for the gold medallists, the Grand Awards Committee will divide into small groups. One group will interview and rank all the junior gold medallists, another group the intermediate golds and the third group the senior golds. Then, each group will look at the other groups' top picks and the Committee will eventually pick the best of the Junior, Intermediate, and Senior projects. At that point the Grand Awards judges may re-interview these top three projects en route to selecting the best project in the Fair.

TEAM CANADA – A CANADIAN SUCCESS STORY

Team Canada YSF represents Canada at the Intel International Science and Engineering Fair (ISEF) held in the United States. The students on Team Canada YSF have attended the Canada-Wide Science Fair at least once, and are willing to compete again at this elite level.

The application process for the ISEF is more complex than for the Canada-Wide Science Fair (CWSF), and students need guidance to ensure that they meet the rules of the ISEF. In particular, students are evaluated on the work they have done in any continuous 12-month period starting on January 1, and ending in May of the following year. For example, a student can start a project on January 1, 2001, present at the CWSF in 2001, continue the project until December 31, 2001, and present it at the ISEF in 2002. This is a major change in the ISEF rules that will make it much easier for Canadian students to present at the ISEF.

Applicants submit a videotape and a written report to the Scientific Advisory Committee which selects the winners. The committee members include faculty members from the University of Western Ontario and the University of Guelph, a High School Teacher, an Elementary School Teacher, a YSF Canada Representative, the National

Judge-in-Chief, and the Director of Team Canada YSF. The committee views the video tapes, and reviews the documentation, iterating this process over a number of rounds until the final members of Team Canada YSF are selected. The committee starts at 9:00 am, and usually finishes at 5:00 PM. All applicants are phoned as soon as the results are available.

More details about this outstanding program are available at the web site for Team Canada YSF:

<http://www.physics.uwo.ca/teamcana/teamcana.htm>

The members of Team Canada YSF have consistently performed exceptionally at ISEF.

List of Special Awards with Codes

Special Awards include scholarships, cash awards, trips and other prizes for projects which meet specific criteria established by the sponsor(s).

Title	Agriculture and Agri-Food Canada Award		
Sponsor	Agriculture and Agri-Food Canada		
Criteria	Outstanding projects relevant to the area of agriculture and/or agri-food.		
Awards (6)	Junior: \$500 (2 awards)	Intermediate: \$1000 (2 awards)	Senior: \$1000 (2 awards)
Award Codes	AGR-J	AGR-I	AGR-S
Remarks	The relevance can be to production agriculture, the input or processing industries, or the consumer. Projects will be judged on the basis of innovation, creativity and originality, and potential benefits.		

Title	Air Canada Youth Science Award		
Sponsor	Air Canada		
Criteria	Outstanding single senior engineering project		
Award	Senior: Two return hospitality tickets to any scheduled North American destination served by Air Canada (including Mexico, Hawaii, and the Caribbean).		
Award Code	AIR-S		
Remarks	Certain blackouts apply. All travel must be completed by Dec 15 2001.		

Title	AECL Award for Excellence in Science		
Sponsor	Atomic Energy of Canada Ltd.		
Criteria	Outstanding project related to energy and the environment.		
Awards (3)	Junior: \$1500	Intermediate: \$1500	Senior: \$1500
Award Codes	AEC-J	AEC-I	AEC-S

Title	Bell Canada Communications Award		
Sponsor	Bell Canada		
Criteria	Most innovative use of communications resources.		
Award	Open (Junior, Intermediate, or Senior): \$1500		
Award Code	BEL-O		

Title	CWSF 2001 Special Award		
Sponsor	Canadian Acoustical Association		
Criteria	Outstanding project related to acoustics (The Science of Sound)		
Award	Open (Junior, Intermediate, or Senior): \$400 plus subscription to the Canadian Acoustics Association's quarterly journal		
Award Code	CAA-O		

Title	CAP Physics Prize		
Sponsor	Canadian Association of Physicists		
Criteria	Outstanding projects related to physics.		
Awards (3)	Junior: \$250	Intermediate: \$250	Senior: \$250
Award Codes	CAP-J	CAP-I	CAP-S

Title	CWSF 2001 Special Award		
Sponsor	Canadian Council of Professional Engineers		
Criteria	Outstanding projects related to engineering		
Awards (3)	Junior: \$500	Intermediate: \$500	Senior: \$500
Award Codes	CPE-J	CPE-I	CPE-S

Title	George Fletcher Award		
Sponsor	Canadian Council of Technicians and Technologists		
Criteria	Outstanding intermediate project related to engineering		
Award	Intermediate: \$500 and a plaque		
Award Code	CCT-I		

Title	The CFES Learning Development Award		
Sponsor	Canadian Federation of Engineering Students		
Criteria	The best engineering-related project that demonstrates long-term interest and involvement.		
Award	Open (Junior, Intermediate, or Senior): \$300		
Award Code	FES-O		
Remarks	The CFES Award is given to the best student project that builds upon previously presented work, whether at a CWSF or elsewhere.		

Title	CWSF 2001 Special Award		
Sponsor	Canadian Institute for Photonic Innovation and the Optical Society of America		
Criteria	Outstanding project related to the fields of light, vision, optics, and photonics		
Award	Open (Junior, Intermediate, or Senior): \$500		
Award Code	CIP-O		

Title	CWSF 2001 Special Award		
Sponsor	Canadian Mathematical Society		
Criteria	Outstanding projects related to the mathematical sciences or that make extensive use of mathematics		
Awards (3)	Junior: \$200	Intermediate: \$300	Senior: \$500
Award Codes	CMS-J	CMS-I	CMS-S

Title	CWSF 2001 Special Award		
Sponsor	Canadian Psychological Association		
Criteria	Outstanding projects related to psychology		
Awards (3)	Junior: \$150	Intermediate: \$200	Senior: \$300
Award Codes	PSY-J	PSY-I	PSY-S

Title	CWSF 2001 Special Award		
Sponsor	Canadian Society for Medical Laboratory Science		
Criteria	Excellence in planning and design of a biomedical experiment, innovation or study by a single participant or group, of relevance to the area of medical laboratory science		
Award	Intermediate: \$500		
Award Code	CSL-I		

Title	Healthy Environment Award		
Sponsor	Environment Canada		
Criteria	Outstanding project relating to clean air and the environment		
Award	Open (Junior, Intermediate, or Senior): \$1000 scholarship		
Award Code	ENV-O		

Title	CWSF 2001 Special Award		
Sponsor	Geological Association of Canada		
Criteria	Outstanding project related to earth science (including geology, geophysics, remote sensing, energy and mineral resources, water pollution, and ocean studies)		
Awards (3)	Junior: \$250	Intermediate: \$500	Senior: \$750
Award Codes	GAC-J	GAC-I	GAC-S

Title	Intel Computer Science Award		
Sponsor	Intel of Canada, Ltd		
Criteria	Most innovative use of a personal computer in any discipline		
Awards (3)	Junior: \$1000	Intermediate: \$1500	Senior: \$2500
Award Codes	INT-J	INT-I	INT-S
Remarks	The PC application must be an integral non-trivial part of the scientific project (i.e. not merely used as a word processor or spreadsheet). Without the use of a PC, the project would not have been possible in its present form.		

Title	CWSF 2001 Special Award		
Sponsor	Life Members' Organization of the EIC		
Criteria	Outstanding innovative junior engineering projects		
Awards (2)	Junior: \$300 (first place), \$200 (second place)		
Award Code	EIC-J		

Title	The Manning Innovation Achievement Awards		
Sponsor	The Manning Innovation Awards		
Criteria	Outstanding senior innovation projects.		
Awards (8)	Senior: \$500		
Award Code	MAN-S		
Remarks	Four of the Manning Innovation Achievement Award winners will also be announced as winners of \$4000 Manning Young Canadian Awards (to be presented at a later date)		

Title	Merck Frosst Award		
Sponsor	Merck Frosst Canada Inc.		
Criteria	Outstanding project in the field of pharmaceutical sciences, medicine, biology, or chemistry, related to human health		
Awards (3)	Junior: \$500	Intermediate: \$500	Senior: \$500
Award Codes	MER-J	MER-I	MER-S
Remarks	Each award includes a prize of \$500 in the student's name to his or her high school or science club to be applied towards the purchase of science equipment for the school of science club where the project was conducted.		

Title	MetSoc (CIM) Materials/Metallurgy Award		
Sponsor	The Metallurgical Society of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM)		
Criteria	Best application of a new material or process related to the materials and metallurgy industry		
Award	Open (Junior, Intermediate, or Senior): \$500		
Award Code	CIM-O		

Title	NRCan Office of Energy Efficiency Award		
Sponsor	Natural Resources Canada Office of Energy Efficiency		
Criteria	Outstanding projects related to the efficiency of energy use		
Awards (3)	Junior: \$500	Intermediate: \$500	Senior: \$500
Award Codes	NAT-J	NAT-I	NAT-S

Title	Ontario Power Generation Renewable Energy Award		
Sponsor	Ontario Power Generation		
Criteria	Outstanding projects related to renewable energy and air quality with a demonstrated interest in environmental stewardship		
Awards (6)	Junior: \$500 (2)	Intermediate: \$1000 (2)	Senior: \$1500 (2)
Award Codes	OPG-J	OPG-I	OPG-S

Title	CWSF 2001 Special Award		
Sponsor	Pulp & Paper Technical Association of Canada		
Criteria	Outstanding project related to the pulp and paper industry		
Award	Open (Junior, Intermediate, or Senior): \$500		
Award Code	PPA-O		

Title	CWSF 2001 Special Award		
Sponsor	Railway Association of Canada		
Criteria	Outstanding projects related to rail transportation		
Awards (2)	Open (Junior, Intermediate, or Senior): \$500 (2)		
Award Code	RAC-O		

Title	RASC Award for Excellence in Astronomy		
Sponsor	Royal Astronomical Society of Canada		
Criteria	Outstanding projects related to astronomy – observational, instrument construction, or other		
Awards (3)	Junior: \$200	Intermediate: \$200	Senior: \$200
Award Codes	RAS-J	RAS-I	RAS-J
Remarks	Each award includes a one-year membership in the RASC.		

Title	CWSF 2001 Special Award		
Sponsor	S.M. Blair Family Foundation		
Criteria	A project in the field of engineering technologies that merits application for a patent.		
Award	Open (Junior, Intermediate, or Senior): \$500		
Award Code	SMB-O		

Title	Statistical Society of Canada Awards		
Sponsor	Statistical Society of Canada		
Criteria	Four outstanding projects in statistical theory, or that make use of sound statistical techniques of study design, data analysis and data presentation		
Awards (4)	Open (Junior, Intermediate, or Senior): Two (2) \$600 awards and two (2) \$400 awards, all courtesy of Reader's Digest and Glaxo Smith Kline Canada		
Award Code	STA-O		

Title	Suncor Energy Foundation "Shared Achievement" Awards		
Sponsor	Suncor Energy Foundation		
Criteria	Outstanding project related to the environment		
Awards (3)	Junior: \$500	Intermediate: \$500	Senior: \$1000
Award Codes	SUN-J	SUN-I	SUN-S

Title	TD Bank Financial Group Award in Electronic Communication		
Sponsor	TD Bank Financial Group		
Criteria	Outstanding project dealing with electronic communication		
Awards (3)	Junior: \$1250	Intermediate: \$1250	Senior: \$2000
Award Codes	TDB-J	TDB-I	TDB-S
Remarks	The project could deal with the convergence of entertainment, computing, voice and data communications.		

Title	Canadian National Stockholm Junior Water Prize		
Sponsor	Water Environment Association of Ontario, British Columbia Water and Wastewater Association, and Western Canada Water Environment Association		
Criteria	Best senior science fair project related to water quality, water resource management, water protection, water treatment, or wastewater management		
Award	Senior: one (1) all-expense paid trip to Stockholm, Sweden, August 12-16, for one (1) student to represent Canada at the Stockholm Junior Water Prize Competition.		
Award Code	WEA-S		

Title	The Queen's University Applied Science Award		
Sponsor	Faculty of Applied Science at Queen's University, Kingston		
Criteria	An outstanding project demonstrating an innovative integration of scientific theory and engineering practice.		
Award	Open (Junior, Intermediate, or Senior): \$1000, plus a \$1500 tuition scholarship to Queen's Applied Science (conditional upon acceptance to the program)		
Award Code	QUE-O		

Note: the following awards do not require self-nomination.

Title	The University of Western Ontario Scholarship
Sponsor	The University of Western Ontario
Criteria	In each of the six Divisions, the scholarship is offered to each of the winners of the Gold, Silver, and Bronze medals who enter the University for further study
Awards (18)	Open (Junior, Intermediate, or Senior): one (1) entrance scholarship of \$2000 to the University of Western Ontario
Award Code	None: this award does not require self-nomination
Remarks	Students must maintain an "A" average in their final marks in the last year of high school and must also register for full-time studies at Western.

Title	The Queen's University Scholarships
Sponsor	Queen's University
Criteria	Offered to five students selected from the divisional Gold Medal winners who enter Queen's University for further studies.
Awards (5)	Five (5) entrance scholarships of \$10,000 each to Queen's University (\$2500 per year for four years)
Award Code	None: this award does not require self-nomination
Remarks	Students must maintain an "A" average in the last year of high school, must meet Queen's University admission requirements, and must also register for full-time studies at Queen's.

Petro-Canada Peer Prize for Innovation

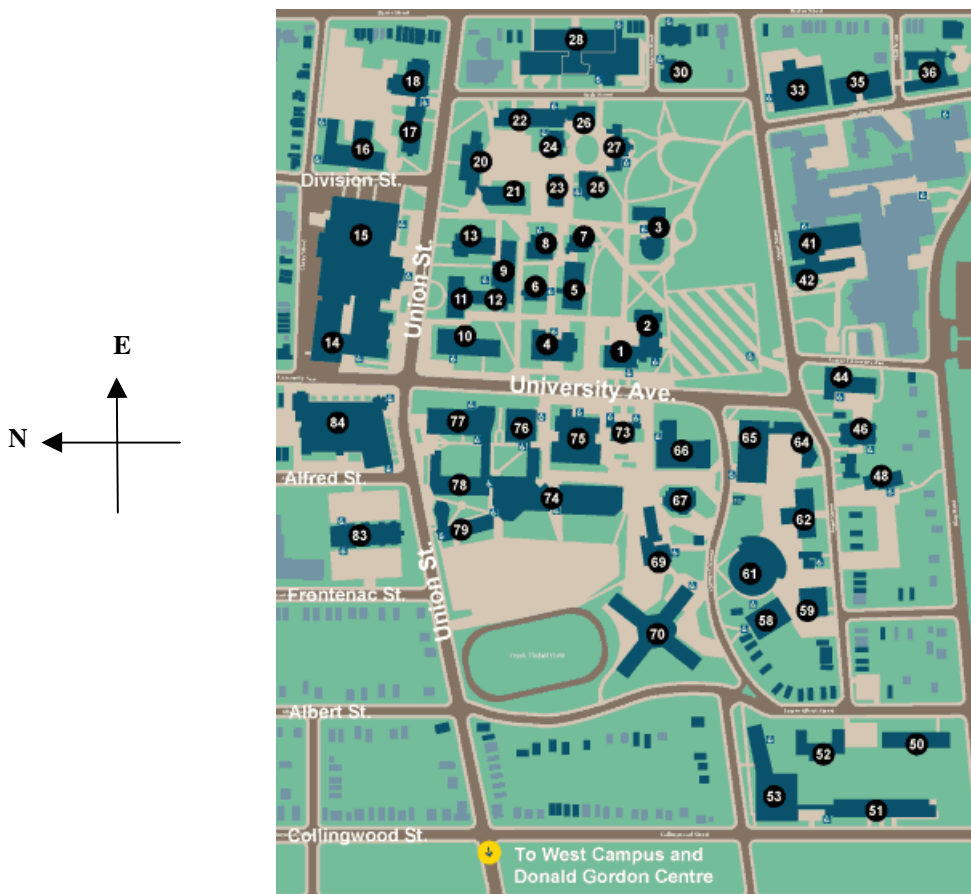
The Petro-Canada Peer Innovation Awards provide an opportunity for Canada-Wide Science Fair participants themselves to recognize projects that exemplify innovation and excellence in science and technology. The student (or 2 students together) for each project casts one vote for up to three projects (which may include their own) from their geographic zone and grade category. The award includes a cash prize and a scholarship. A total of 18 awards-three categories in each of six zones- are presented.

Title	Petro-Canada Peer Prize for Innovation
Sponsor	Petro-Canada
Criteria	The Petro-Canada Peer Innovation Awards are an opportunity for Canada-Wide Science Fair exhibitors to honour projects that exemplify innovation and excellence in science and technology
Awards (18)	Open (Junior, Intermediate, or Senior): Eighteen (18) regional prizes of \$750, each consisting of a \$500 scholarship and \$250 cash, award as follows: Atlantic Canada (3), Quebec (3), Southern Ontario (3), Northern and Eastern Ontario (3), Central Canada (3), Western Canada (3)
Award Code	None: this award does not require self-nomination

How to reach Queen's University by car, bus, train, or plane:



Once on Campus: [Note that this map has been rotated 90 degrees relative to the one above!] The Canada-Wide Science Fair will be held in the gymnasium complex, number 15 on the map, near the corner of Union Street and Division Street. Entry to the building is from Union Street. On-campus parking is not available except in the underground garage shown with the diagonal hatching (to the upper right of the words “University Ave”). Free on-street parking is available a few blocks to the west of the campus (just off the left of the lower part of the map).



JUDGING SCHEDULE

CWSF / ESPC 2001 – Kingston – Judging Schedule			
Monday, May 14 (orientation)	17:30-20:30	Registration / judges packages	PhysEd Centre, 2 nd floor
	17:40-18:15	Divisional (Tues.) captains' meeting	PhysEd Centre, 205
	18:15-19:00	Special Awards (Wed.) captains' meeting	PhysEd Centre, 205
	18:00-19:00	Pre-orientation refreshments	PhysEd Centre, 2 nd floor
	19:00-20:00	Orientation session – all judges	Dunning Aud.
	20:00-21:30	Project viewing (no students present) + late registration	PhysEd Centre
Tuesday, May 15 (divisional judging)	08:00-08:15	Sign-in at entrance to break-out area/coffee, juice, muffins	Jock Harty Arena
	08:15-09:00	Team meetings in break-out area. Choose assistant captains as necessary Reassignments from reserve pool to cover no-shows	Jock Harty Arena
	09:00-12:00	Divisional judging (6 half-hour slots)	PhysEd Centre
	12:00-13:30	Judges' luncheon in break-out area.	Jock Harty Arena
	13:30-15:30	Divisional judging (4 half-hour slots)	PhysEd Centre
	15:30-15:45	Afternoon break and allowance for run-over	
	15:45-17:00	Team meetings to rank projects & screen some Special Awards	Jock Harty
	17:00 –17:45	Teams prepare coherent feedback for students	Jock Harty Arena
	18:00	Buffet dinner for captains, assist. capt., & out-of-town judges	Jock Harty
	18:30-21:30	Captains & assist. capt. select medallists & honourable mentions (via discussions in break-out area and revisiting projects)	PhysEd & Jock Harty
	21:30	Deadline for list of medallists to Chief Judge	
	22:00	Division Chairs debrief Chief Judge	
	Wednesday, May 16 (special awards)	07:45-0815	Captains' update: review procedure/schedule/pre-screening results
08:00-0815		Sign-in at entrance to break-out area/coffee, juice, muffins	Jock Harty Arena
08:30-09:00		Team meetings – captain explains process	Jock Harty Arena
09:00-12:00		Judging interviews	PhysEd Centre
12:00-13:30		Judges' luncheon in break-out area.	Jock Harty Arena
13:30-15:30		Judging interviews	PhysEd Centre
15:30-15:45		Afternoon break and allowance for run-over	
15:45-17:00		Team meetings to rank projects and select winners	Jock Harty Arena
17:00		Captains submit results to Special Awards Co-ordinator	Jock Harty Arena
17:30		Special Awards Coordinator debriefs Chief Judge	
18:30		Cash bar at Vimy Officers' Mess	Canadian Forces Base Kingston
19:00		Judges banquet at Vimy Officers' Mess	Canadian Forces Base Kingston