
**POLICY, PROCEDURES
AND GUIDELINES MANUAL
FOR THE
NATIONAL SCIENCE FAIR PROGRAM**

2001

Introduction

The information contained in the following pages outlines the policy of the Youth Science Foundation Canada with respect to the National Science Fair Program.

The Youth Science Foundation Canada would like to acknowledge and thank the contributions made by the National Science Fair Committee in the preparation of this manual.



YOUTH SCIENCE
FOUNDATION CANADA

FONDATION SCIENCES
JEUNESSE CANADA



Glossary of terms and abbreviations

YSF Canada Youth Science Foundation Canada
CWSF Canada-Wide Science Fair
NSFC National Science Fair Committee
RSF Regional Science Fair
ISEF Intel International Science and Engineering Fair

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1 – YOUTH SCIENCE FOUNDATION CANADA

The Organization

The science fair movement in Canada dates back to 1959 when Winnipeg, Edmonton, Toronto, Montreal, Hamilton and Vancouver first hosted fairs. The concept spread quickly and two years later an association of national professional, scientific and technical societies established the Canadian Science Fairs' Council to co-ordinate the operation of science fairs.

The Council was replaced by the Youth Science Foundation and was incorporated in 1966. Its purpose was to support 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.

In October 1993, a new General By-Law was drafted to encompass the Foundation's new vision, mission and objectives. Supplementary Letters Patent were issued changing the name of the organization to the Youth Science Foundation Canada (YSF Canada).

Many organizations are engaged in the challenge to interest Canadian youth in science and technology. Only YSF Canada, however, has almost 30 years of experience to its credit and a network of dedicated volunteers working from coast to coast. YSF Canada proudly claims the nation's most efficient delivery system in terms of science education.

Program Objectives

Vision

The Youth Science Foundation Canada is the national organization for leadership in extra-curricular science and technology education.

Mission

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

Strategic Objectives

Primary: To encourage more young Canadians to pursue career opportunities in science and technology.

Secondary: To increase scientific literacy.

Governance

YSF Canada has undergone changes in recent years to ensure that its operations are governed by sound business practices. The Executive Director of the Foundation oversees daily operations and ensures that these are in keeping with its vision, mission and objectives.

Board of Directors

The Board of Directors consists of 8 to 20 dedicated professionals drawn from all levels of the academic community, businesses related to science and technology, professional societies, and individual members of YSF Canada. All members of the Board shall be elected from among the members of YSF Canada. The focus of the Board has been broadened to include enhancing YSF Canada's profile and improving its ability for long-term strategic planning. The Executive Committee of the Board of Directors closely manages the financial and policy aspects of the Foundation's business. A list of the Board of Directors is available upon request.

YSF Canada's Honourary patron is Dr. Roberta Bondar.

Standing Committees of the Board

Fund Raising Committee

The Fund Raising Committee shall develop financing strategy, prepare recommendations for consideration by the Executive Committee and approval by the Board, and co-ordinate a fund-raising campaign to support the programs of the Foundation.

Strategic Planning Committee

The Strategic Planning Committee shall research, develop and recommend a strategic planning framework for the Foundation, develop and maintain strategic plans with goals for each priority approved by the Board, identify strategic issues and develop position papers for consideration by the Executive Committee and approval by the Board.

Program Committee

The Program Committee shall introduce, monitor and co-ordinate the implementation of Board policy affecting the Foundation's national extra-curricular science and technology education programs for Canadian youth, and provide recommendations affecting changes in operational policy for consideration by the Executive Committee and approval by the Board.

Public Relations Committee

The Public Relations Committee shall develop and recommend public relations strategies and activities for consideration of the Executive Committee and approval by the Board. These recommendations shall enhance the Foundation's corporate image and promote its programs.

Nominations Committee

The Nominations Committee shall call for nominations, seek out individual members willing to stand for election and shall approach potential appointees to prepare a slate of proposed directors for approval at the Annual Meeting of the Foundation. The committee is chaired by the Past President of the Foundation.

Other Committees of the Foundation

National Science Fair Committee

Volunteers elected to the National Science Fair Committee by Regional Science Fair delegates provide an operational overview of the national science fair structure and recommend policy improvements to the Board of Directors through the Program Committee.

CWSF Grand Awards Judging Committee

This committee is staffed from the YSF Canada volunteers and is responsible for judging and selecting the students to be awarded all the Grand Awards and some of the Special Awards at the Canada-Wide Science Fair.

Technology Committee

This committee is staffed by volunteers and its purpose is to advise and design data management programs which will provide relevant information concerning YSF Canada programs.

Ethics, Safety and Animal Care Policy Committee

This committee is responsible for the monitoring and screening of projects involving the use of human participants as research subjects, the use of live animals as well as the use of

hazardous biological materials for display purposes. The committee is responsible for updating the rules and regulations for animal care and general safety.

CWSF Bid Selection Committee

The committee is chaired by the President and hears each CWSF bid presentation at the Canada-Wide Science Fair. It recommends a candidate city for the approval of the Board. The committee includes Board members and NSFC representatives.

Team Canada Science Committee

The committee consists of adult advisors from the volunteer network and is coordinated through the YSF Canada office. The committee approves and monitors all student project work leading up to the Intel International Science and Engineering Fair. The Scientific/Industrial Review Committee is a sub-committee that handles project referrals that require technical and scientific expertise and interpretation.

Ad Hoc Committees

Ad hoc committees are comprised of volunteers with the expertise to assess a new program idea which, if found to be valid, will set the criteria for success. Approved ideas will be tested for regional acceptance to determine if a national program is feasible. Pilot projects will determine if the criteria for success can be met and will provide the date for business planning and corporate sponsorship.

Role of YSF Canada national office

The YSF Canada national office, under the auspices of the Board of Directors and its committees, provides the leadership, organization and structure to develop and meet YSF Canada's vision, serve its constituents, plan and implement strategies, develop new programs, and evaluate and measure success.

The Programs

National Science Fair Program

YSF Canada's National Science Fair Program is the largest extra-curricular activity related to science and technology in Canada. Science fairs are often cited as having a profound influence on students' interest in further study and careers in science and technology, and in research, writing, presentation and leadership skills.

Regional Science Fairs

About 500,000 student science projects compete within their classroom, or school, and some 25,000 of those become eligible to participate in the RSFs. There are over 100 regions established in Canada that are eligible to participate in the National Science Fair Program upon annual affiliation with YSF Canada.

Canada-Wide Science Fair

Winners from each of the RSFs are brought together at the annual Canada-Wide Science Fair. Some 400 students have the opportunity to communicate and compete with the best students in Canada and to be judged by highly competent scientists and researchers.

Role of YSF Canada National office

- Organizes the CWSF Travel Plan for about 600 people (exhibitors and adult delegates) who travel to the Canada-Wide Science Fair each year. The purpose of the travel plan is to equalize the travel costs to the affiliated RSFs

- Organizes the annual affiliation of Regional Science Fairs.
- Arranges for a national insurance liability contract to cover any eventualities which may arise in connection with the staging of the RSFs and the CWSF.
- Provides an operational budget for, and supports the work of the volunteer National Science Fair Committee.
- Updates and distributes the *Policy, Procedures and Guidelines Manual* for the National Science Fair Program.
- Cooperates with the Host Committee in the organization of the annual CWSF and its communications with the RSFs.
- Maintains a CWSF computerized registration and awards database program. The software provides the basis for statistical reports and volunteer/alumni-databases
- Assists the National Science Fair Committee in coordinating workshops for RSF delegates who attend the CWSF. Topics for the workshops are chosen by the RSFs
- Publishes and distributes communiqués, brochures, CWSF registration and information packages to all affiliated RSFs.
- Maintains an inventory of science fair materials and publications available to the RSFs and others upon request.
- Coordinates media relations activities.
- Promotes science fairs to corporations, Members of Parliament, other government officials and members of the public.
- Conducts annual surveys of the affiliated RSFs to obtain quantitative information about the fairs.
- Conducts annual surveys of the adult delegates attending the CWSF to solicit their opinions on increasing participation and improving existing programs.

National Awards Program

The National Awards Program grew out of YSF Canada's CWSF as an incentive for excellence. The program is a means to reward the scientific and technological achievements of students participating in YSF Canada programs, and to acknowledge the contributions of YSF Canada volunteers. More than \$200,000 in cash, trips and other prizes is presented annually to deserving students.

The following components make up the National Awards Program:

Regional Science Fair Awards

YSF Canada solicits sponsors and, on behalf of the sponsors, coordinates the distribution of these awards, worth over \$40,000, at all affiliated RSFs.

Canada-Wide Science Fair Awards

Science Fair Awards Outstanding students at the CWSF compete for prizes valued at more than \$200,000.

Division Awards designate the gold, silver and bronze medal award winners in each of six divisions: Biotechnology, Computing and Mathematical Science, Earth and Environmental Sciences, Engineering, Life Sciences, and Physical Sciences . Cash prizes are associated with each of these.

Special Awards include scholarships, cash prizes, trips to participate in science-related activities, and other prizes awarded to participants matching sponsor criteria.

Petro-Canada Peer Innovation Awards provide an opportunity for Canada-Wide Science Fair participants to select projects for recognition that exemplify innovation and excellence in science and technology.

Grand Awards recognize the best of the best by awarding scholarships to the Best Junior, Intermediate, Senior and Best of Fair.

Distinguished Service Awards

The Distinguished Service Awards (DSA) recognize volunteers who have made outstanding contributions, through innovation, long service, or leadership, to the Foundation or its youth programs at any level.

Role of YSF Canada national office

- Solicits national sponsors of RSF awards and coordinates the distribution of the awards.
- Solicits sponsors of CWSF awards and coordinates their presentation.
- Writes and updates annually the judging manual for use at the Canada-Wide Science Fair.
- Publishes and distributes awards brochures and information packages to all RSFs and sponsors.
- Coordinates media relations activities before and after the awards ceremony.
- Organizes and underwrites the costs of providing a highly specialized national judging team for use by the host committee at the CWSF.
- Coordinates the nominations and selection of the recipients of the Distinguished Service Awards, through the Vice Chairperson of the NSFC.

International Program

The International Program of YSF Canada gives outstanding students the opportunity to compete on a world scale, travel internationally and host foreign students at the CWSF. It is currently made up of the following components:

Team Canada-YSF

The most comprehensive of YSF Canada's international activities, *Team Canada-YSF* is composed of an exceptional group of competitors with experience at CWSF. *Team Canada-YSF* members are entered in the Intel International Science and Engineering Fair (ISEF) where they compete with students from 30 countries for a prize pool of cash, trips, scholarships and prizes valued at more than \$1 million.

The International Summer Science Institute in Israel

Two CWSF participants are selected annually to attend the International Summer Science Institute in Israel held at the Weizmann Institute, a world-renowned centre of scientific research and graduate studies. Sponsored by the Canadian Society for the Weizmann Institute of Science, YSF Canada students join some 75 science students from Europe, Asia, the Americas and Israel, and work alongside top researchers.

International Exchanges

YSF Canada provides Canadian students with the opportunity to host their international counterparts from Japan, Taiwan, Australia and Sweden at the CWSF. International exchanges provide students with a unique opportunity to exchange information about science and technology in their respective countries. They also promote a better understanding of various cultures, and give students a chance to forge personal and professional ties around the world.

Role of YSF Canada national office

- Manages all aspects of Team Canada–YSF including solicitation of sponsors, media relations, regional mentorship for each of the Team members, coordination of registration and travel to the ISEF, and liaison with ISEF.
- Coordinates the registration and travel of students on international activities.
- Coordinates the invitation and registration of foreign students attending the CWSF.

Pilot Projects

The following developmental projects were either field tested and/or evaluated with teachers from across Canada. A business plan and/or project report was prepared in each case.

Sci-Tech Clubs of YSF Canada

The Sci-Tech Clubs provide an atmosphere of fun as well as an opportunity for creative thinking and problem solving, and encourage teamwork among club members. Professional development workshops were conducted for teachers with an interest in starting a club in their school. An organizational manual was also developed, with suggested activities to be used by teachers.

Regional Science Olympics Challenge

Regional Science Olympics Challenge is a problem-solving forum designed to encourage participants to apply their knowledge of science, be creative and have fun.

Educational Resource Materials Centre

Educational Resource Materials Centre is a central clearing-house of resource materials produced by or available through the provincial science teachers' associations.

Role of YSF Canada national office

- Seeks seed funding in the form of sponsorships.
- Develops, manages and evaluates pilot projects.
- Prepares the project(s) for national implementation.

Additional YSF Canada Office Functions

- Provides support to the Board of Directors and its various committees.
- Conducts fund-raising campaigns to solicit donations to cover program and operating expenses.
- Prepares and submits grant applications for funding. Produces reports to fulfill the terms of the funding contract.
- Publishes and distributes YSF Canada newsletters to donors, sponsors and members.
- Performs the day-to-day activities relating to accounting and office administration.

2 – NATIONAL SCIENCE FAIR COMMITTEE

The purpose of the National Science Fair Committee (NSFC) is to represent the participating Regional Science Fairs.

The NSFC advises the Chairperson of the Program Committee on operational policy matters affecting the successful implementation of the science fair program. Conversely, the NSFC advises the RSFs in the interpretation and application of YSF Canada operational policy as represented in the *Policy Procedures and Guidelines Manual* for the National Science Fair Program.

The NSFC also monitors the application of the policy, procedures and guidelines and ensures that there is compliance at RSFs and at the CWSF.

The NSFC has an Executive Committee to guide its affairs and to help YSF Canada select the location of the CWSF.

Organization

Committee members

Chairperson: Elected by the delegates and assumes the role of Chairperson in his/her second year of a three-year team.

Vice-Chairperson: Elected by the delegates and acts as Vice-Chairperson in his/her first year of a three-year term.

Past Chairperson: Elected by the delegates and acts as Past Chairperson in his/her third year of three-year term.

Zone Representatives: Elected by the zone delegates for a three-year term for the following zones: Atlantic, Ontario (South), Ontario (North and East), Central Canada and Western Canada. The Zone representative for Quebec is appointed by the *Conseil de développement du loisir scientifique (CDLS)*.

CWSF Host Committee Chairpersons Working Group: The Chairperson of the past, next and future CWSF Host Committees.

YSF Canada: The President of YSF Canada and the Chairperson of the Program Committee are ex-officio members of all youth program committees.

Note: A list of current NSFC members is available upon request from the YSF Canada office.

Meetings

Meetings of the NSFC are held three times a year:

- in May at the Canada-Wide Science Fair
- in September
- in March/April at the Annual General Meeting

Subcommittees and working groups

NSFC Executive Committee

The National Science Fair Committee has an Executive Committee comprised of the Chairperson, the Vice-Chairperson and the Past Chairperson.

The Committee plans program committee activities, recommends annual goals and liaises with the Executive Director of YSF Canada to harmonize planning and budgeting.

The committee may also create subcommittees to investigate specific concerns and to recommend solutions (e.g., to recommend workshop topics for the professional development of each delegate)

RSF Delegates Working Group

One delegate and one alternate delegate (optional) are selected from each affiliated Regional Science Fair to attend the Delegates Meeting at the CWSF. This meeting is organized by the NSFC Executive Committee and chaired by the NSFC Chairperson.

The plenary session of RSF delegates is a sounding board for the NSFC and hears resolutions for improving the operations of science fairs, including the CWSF.

Delegate workshops

Delegate workshops at the CWSF deal with program administration (e.g., the CWSF Travel Plan, RSF fund raising, RSF Data Capture and Management Systems, teacher/volunteer liability, as well as professional development workshops). YSF Canada organizes these professional workshops jointly with the NSFC and CWSF Host Committee.

Elections

General

Elections are held at the Delegates meeting in May at the CWSF.

Elections of the NSFC Vice-Chairperson

Term

This elected position is for one three-year term. The first year is served as Vice-Chairperson, the second as Chairperson and the third as Past Chairperson.

Deadline for nominations

The deadline for accepting nominations is set by the Chairperson of the NSFC.

Eligibility

The following groups of people shall be eligible to run for the position of Vice-Chairperson provided they have attended *at least three* CWSFs (two previous CWSFs together with the present will be acceptable) provided attendance was in some official capacity other than an exhibitor.

- Zone Representatives of the present or past NSFC.
- All first delegates or previous first delegates to the CWSF. (A first delegate is the voting delegate for a specific Regional Science Fair).
- Members of an affiliated RSF who have been a first delegate and have attended at least three CWSFs in the past, and who are unable to attend the present CWSF, provided they have met the following restrictions:
 - They have expressed an intention to run to the present NSFC Chairperson prior to the deadline for nominations, and stated their qualifications, their reasons for wanting to run for election and an explanation of why they are unable to attend the CWSF.

- They have either arranged for a third party to present a speech on their behalf, or have prepared a short video of their speech (four minutes).

Nominations

All candidates must be nominated and seconded in writing by delegates.

RSF representation

An RSF may have a maximum of two elected representatives on the NSFC at any one time (only one of whom may be on the Executive Committee).

Presentation to delegates

Each nominee has four minutes to address the delegates before a vote is taken. Delegates will have an opportunity to address questions to the candidates.

Absenting of candidates

The nominees, if present, will leave the room while the vote is taken.

Election of Zone Representatives

Term

The length of the term is three years. The term is not renewable.

Deadline for nominations

- The deadline for accepting nominations is set by the Chairperson of the NSFC.
- Candidates unable to attend the CWSF may submit a written application to YSF Canada.
- The application must be received at least 30 days prior to the CWSF and state the candidate's qualifications, reasons for wanting to stand for election and an explanation for their absence at the CWSF.

Eligibility

The following groups of people shall be permitted to run for election as Zone Representatives provided they have attended at least two CWSFs (one previous CWSF together with the present is acceptable) provided attendance was in some official capacity other than an exhibitor:

- First delegates or previous first delegates from the zone.
- Alternate delegates or previous alternate delegates from the zone.
- Individuals with relevant CWSF/NSFC/Board/Host Committee experience are eligible to run.

Nominations

- In the event of a single nomination the candidate is considered acclaimed.
- The Zone Representative is to be nominated by the regional representatives from those regions that fall within the zone.
- All candidates must be nominated and seconded in writing by delegates only.

The election meeting

The election of Zone Representatives is to take place at the CWSF by first delegates from the zone at a special meeting called for that purpose. This meeting will be supervised by the Past Chairperson of the NSFC and chaired by a designate (usually the outgoing Zone Representative).

Quorum

- A quorum of at least two-thirds of the eligible delegates must be present.
- In the event that quorum is not met at the CWSF, an election will take place within 60 days by way of a mail-in vote. Each region will be issued a single ballot that is to be returned to the YSF Canada office. The results of this vote will be final. The candidate with the most votes will win.

RSF representation

An RSF may have a maximum of two elected representatives on the NSFC at any one time.

Presentation to delegates

Each nominee has four minutes to address the delegates before a vote is taken.

Absenting of candidates

The nominees, if present, will leave the room while the vote is taken.

Deciding ballot

If a simple majority cannot be reached, the Chairperson of the election meeting shall cast the deciding ballot.

Responsibilities

The NSFC monitors the activities of the Regional Science Fairs with respect to policy, procedures and guidelines, and reports annual progress to YSF Canada and to the annual meeting of Regional Science Fair delegates.

The Chairperson is a member of the Program Committee.

The Chairperson, Vice-Chairperson and Past Chairperson represent the National Science Fair Program on the CWSF Bid Selection Committee. Other members of the National Science Fair Committee may attend CWSF Bid Selection Committee meetings as observers. They may ask questions of CWSF candidates but they are not involved in the final selection process.

The Committee is a resource to CWSF Host Committee Chairpersons on the implementation of CWSF operational planning per the *Policy, Procedures and Guidelines Manual* for the National Science Fair Program and operational compliance with the Agency Agreement.

The Committee handles issues of accreditation and disqualification of Regional Science Fairs participating in the Canada-Wide Science Fair. Matters involving the scientific merit of exhibits, safety, animal care and ethics are the responsibility of the subcommittee bearing that name.

The Committee directs the annual Delegates meeting, providing the agenda and Chairperson to ensure continuity from year to year.

Policy changes approved by the Board of Directors and included in the annual *Policy, Procedures and Guideline Manual* update will be presented at the next CWSF Delegates Meeting.

The Committee shall select a member of its committee to be an ex-officio member of the Board of Directors.

The Committee shall delegate the Past Chairperson to be a member of the Safety, Animal Care and Ethics Committee, an advisory committee to the Program Committee.

The Committee shall strike a budget for expenses in the forthcoming year. This budget shall be submitted to the Executive Director, to ensure that it becomes incorporated in the budget

approval process. Budget assessment and approval is undertaken by the YSF Canada Executive Committee.

If the Past Chairperson's position becomes vacant, a former Past Chairperson or a member of the Committee will be asked to fill the vacancy until new elections are called.

If the Vice-Chairperson's position is vacated, the Committee shall appoint the candidate with the second highest vote count in the previous election.

The Committee shall conduct an evaluation survey of all delegates and alternates at each CWSF.

Chairperson

Role

To provide leadership and preside over the affairs of the NSFC.

General Responsibilities

- Represent the NSFC and RSF delegates within the context of YSF Canada youth programs.
- Recommend operational policy and identify strategic considerations for the enhancement of the National Science Fair Program.

Specific Responsibilities

- Ensure goals are established for the NSFC on an annual basis.
- Ensure that the workload to achieve goals is spread evenly among NSFC members.
- Ensure that Chairperson and Zone Representative reports are sent to YSF Canada.
- Recommend changes to the *Policy, Procedures and Guidelines Manual* for consideration by the YSF Canada Executive Committee each year. The deadline is June 30 to ensure time for approval and manual availability in September.
- Act as a consultant to the NSFC Executive and to Zone Representatives to resolve issues between meetings and to ensure ratification at the next official meeting.
- Establish and coordinate subcommittees as needed.
- Evaluate the functioning of the NSFC in consultation with the NSFC Executive Committee, prepare regular progress reports as needed by the Program Committee and YSF Canada Executive Committee. Participate, as required, in the program operational reviews to maintain the relevance of the National Science Fair Program to YSF Canada's mission, objectives (strategic and program) and goals.
- Ensure that the members of the NSFC complete the duties as stated in the *Policy, Procedures and Guidelines Manual*.
- Assist the Vice-Chairperson in the preparation of the annual budget for the NSFC.
- Liaise with the Executive Director on a regular basis to ensure the coordination of plans.
- Participate in the annual CWSF site visit.

Meetings

- Preside at all meetings of the NSFC and at the annual Delegates Meeting at the CWSF.
- Call two NSFC Executive Committee meetings annually. The first meeting should be held in the summer to review the May NSFC Minutes and to develop an agenda for the September NSFC meeting. The second should be held in the winter to plan the March and May NSFC agendas and the CWSF Delegates Meeting.

- Present formal written reports to :
 - CWSF Delegates Meeting;
 - NSFC fall meeting; and
 - Program Committee meetings.

Canada-Wide Science Fair

- Work with the Host Committee to uphold all YSF Canada rules and regulations pertaining to the CWSF and student projects at the CWSF.
- Work with the Zone Representatives to coordinate their activities, such as workshops, at the CWSF.
- Represent the NSFC at official functions.
- Transfer the Chair and leadership role of the NSFC to the incoming Chairperson (the Vice-Chairperson) at the CWSF through a formal passing of the gavel.

Past Chairperson

Role

To provide national-level science fair experience and leadership in support of the Chairperson and new committee members to ensure NSFC stability and administrative continuity.

Responsibilities

- To act as an advisor to the Chairperson on procedures, etc.
- To act as Chairperson in the event that the Chairperson is not available.
- To act, upon request, as an expert resource or liaison to the Program Committee or the YSF Canada Executive Committee.
- To update the procedures for the election of the Vice-Chairperson.
- To represent the NSFC on the Judging Standards Committee of the National Youth Science Awards Program.
- To represent the NSFC on the Safety, Animal Care and Ethics Committee, advisory committee to the Program Committee.

Meetings

- To oversee the election of the next Vice-Chairperson of the NSFC at the annual Delegates Meeting at the CWSF.
- To ensure that the election of the new Zone Representatives of the NSFC is scheduled to be held at the CWSF and that procedures are followed.
- To cross-check motions to determine impact on approved administrative procedure.

Canada-Wide Science Fair

- To support the YSF Canada National Chief Judge.
- To act as an advisor to the CWSF Chief Judge.
- To be a member of the YSF Canada Safety, Animal Care and Ethics Committee and to organize NSFC members to assist the Host Committee in complying with its directives.
- To liaise and coordinate with the YSF Canada International Program Committee to ensure that foreign students exhibiting at the CWSF receive a warm welcome, understand the operation of the CWSF and the associated rules, and to see that their needs are met and their stay is as comfortable as possible.

- **Note:** Invitations for foreign participation as exhibitors and guests at the Canada-Wide Science Fair are issued by the Chairperson of the YSF Canada International Program Committee.

Vice-Chairperson

Role

To provide support to the NSFC Chairperson and to provide leadership for the future development of the NSFC.

Responsibilities

- To work closely with the NSFC Chairperson on all matters concerning the NSFC so as to ensure that a broad knowledge base is obtained prior to assuming the Chairperson's position.
- To develop, in conjunction with the NSFC Chairperson and the Executive Director, a budget for the NSFC.
- To carry out any additional duties assigned by the Chairperson.
- To represent the NSFC on the YSF Canada Research Committee.
- To become familiar with the *Policy, Procedures and Guidelines Manual* for the National Science Fair Program and to act as a resource to the NSFC and RSF volunteers in the application of the articles contained therein.
- To initiate and review annual nominations of science fair volunteers and to recommend candidates for the YSF Canada Distinguished Service Awards (DSA). Specifically, the Vice Chairperson ensures that:
 - nominations are in order, deadlines have been met and proper procedure has been followed
 - in collaboration with the YSF Canada office staff, the file on DSA nominations is kept up to date and nomination forms are discarded after the three-year retention period
 - each candidate meets criteria for the award
 - recommended candidates for the DSA are submitted to the YSF Canada Executive Committee for approval three days prior to the March Board meeting
 - the YSF Canada Executive Committee receives all documentation in support of recommended candidates (i.e., contributions to awards criteria)
 - arrangements are made for the appropriate plaques to be purchased and engraved
 - photographs and profiles are prepared for display at the CWSF.
- To read and check all motions before they are discussed by the delegates at the annual Delegates Meeting.
- To participate, upon request, in the subcommittees of the NSFC.
- To prepare and administer an evaluation survey of delegates and alternates with regard to their experience at the CWSF.
- To obtain plaques for presentation on behalf of YSF Canada and the NSFC to the Chairperson of the CWSF Host Committee, the Past Chairperson and Zone Representatives finishing their terms of office.
- To act as Chairperson of the NSFC in the event that neither the Chairperson nor the Past Chairperson is available.
- To coordinate the planning of workshops for delegates.

Zone Representative

Role

To represent regional concerns affecting the implementation of national science fair operational policy and to convey their needs to improve the development of science fairs to YSF Canada.

To encourage regional discussion and to act as a liaison with the zone's RSFs, liaise between the zone and the NSFC and between the zone and YSF Canada.

Responsibilities

- To assist YSF Canada in updating the list of name, address, telephone and fax numbers, and email addresses of each RSF Chairperson
- To engage in written communication with each RSF Chairperson in the zone as soon as possible after the May election. Current science fair practice could be discussed and regions invited to share concerns that could be added by the Zone Representative to the agenda of NSFC at its next meeting. Copies of all important correspondence shall be forwarded to the NSFC Chairperson.
- To act as a mediator/arbitrator in the event that decisions need to be made prior to an upcoming RSF event and before the next meeting of the NSFC or the NSFC Executive. All decisions shall be made in consultation with the NSFC Chairperson, and shall be forwarded in writing to all parties concerned, including the YSF Programs Officer. Ratification of the decision shall be made at the next meeting of the NSFC or, if the decision is interim in nature and an issue remains, the NSFC will take the steps necessary to resolve the issue.
- To promote YSF Canada and its youth programs with emphasis on the National Science Fair Program and the awards available to science fair participants under the National Science Fair Awards Program. Promotion may include presentations to increase science fair participation, workshops and seminars at conferences and professional development days to create new science fairs and affiliated RSFs in the zone.
- To act as a liaison between provincial science teacher organizations and YSF Canada and between RSFs and regional Team Canada Coordinators, where possible.
- To encourage media involvement and promotion of RSFs within the zone.
- To assist in the arrangement and presentation of workshops at the CWSF.
- To assist in the establishment of new RSFs in the zone.
- To act as a resource person to the regional and/or provincial committees within the zone.
- To pass on all relevant files, documents, correspondence, etc. to the incoming Zone Representative, at the conclusion of term of office.

Expenses

Budgets for Zone Representatives will be set annually by the NSFC Executive and claims for disbursements may be claimed within these budget envelopes. Claims should be sent to the YSF Canada Program Officer responsible for the National Science Fair Program, using forms provided by YSF Canada. Current federal government Treasury Board guidelines should be followed for travel, meals and accommodation. A sample copy of Treasury Board guidelines is included as Appendix A. YSF Canada, through its NSFC budget, pays the expenses of NSFC members to attend its meetings.

Other expenses are monitored by the NSFC Chairperson and must stay within the Committee budget envelope approved by YSF Canada. The YSF Canada Administrative Officer will provide a quarterly report of NSFC expenditures to the Chairperson.

Surveys

General

The NSFC recognizes the need for surveys of RSFs, RSF Delegates, and CWSF student participants as a means of acquiring statistics and comments to characterize participants in science fairs, and to measure the scope of participation.

Delegate survey

The NSFC conducts an annual survey of RSF delegates to the CWSF to determine their opinions about arrangements for the CWSF and suggested improvements. Feedback of this nature is essential to the planning process and is critical to measuring performance. Delegates are asked to provide carefully considered responses to the questions posed, and to return their completed survey to the NSFC at the end of the CWSF.

YSF Canada surveys

From time to time, the NSFC and RSF delegates are called upon to support and to help interpret various YSF Canada surveys of science fair participants. These surveys are essential for program impact and assessment studies. Financial support is predicated upon achieving annual program goals, and these surveys help to measure progress.

List of Past Chairpersons

An historical summary of CWSFs and NSFC Chairpersons is available upon request

General Information

The following pages are designed as an aid to committees of Regional Science Fairs (RSFs), especially those who are new to the operation of the local committee.

A list of science fair regions across Canada is provided as Appendix D.

Incorporation

Each region is encouraged to incorporate and have a constitution with a set of By-Laws that outlines the elections and organizational procedures. Sample constitutions of Regional Science Fairs are available from YSF Canada.

YSF Canada recommends that as a minimum, regions should have operational guidelines that outline how the committee is chosen, which groups are represented and how fiscal responsibility is assigned.

Affiliation with YSF Canada

An Affiliation Agreement must be signed with YSF Canada each year and an annual fee paid according to the affiliation formula. RSFs must sign this Affiliation Agreement with YSF Canada in order to send student exhibitors to the CWSF. A sample Agreement is included as Appendix E. Affiliation of a Regional Science Fair entitles that fair to the following rights and services:

- Membership in the YSF Canada with a vote at the Annual General Meeting and the right to have a representative elected to the YSF Board of Directors
- The privilege of participating in the Regional Science Fair Awards Program, which makes prizes available to each fair
- The privilege of using an extension of the YSF Canada central insurance policy
- The right to participate in the Canada-Wide Science Fair
- The right to receive a fundraising booklet
- The right to nominate a volunteer for the Distinguished Service Award
- The provision, on a regular basis, of information on science fair regulation changes, CWSF plans, resource materials at a reasonable cost and promotional materials

Appeal

A region having a dispute with YSF Canada and/or CWSF Host Committee may appeal its case to the Zone Representative. The Zone Representative will then consult the Chairperson of the NSFC and a decision will be made on how to proceed. If the dispute is with the Zone Representative, the region can address its concerns to the NSFC Chairperson or/and the Executive Director of YSF Canada.

Judging Process

Introduction

A science fair is an organized display of the scientific work of students so that it may be evaluated and made available for public viewing. The basic objectives vary with the level of fair. For example, a school science fair usually stresses participation rather than competition while at the national level, judging is much more intensive.

Science fairs provide a unique opportunity to increase awareness of science among participants and the general public. The opportunity to display their projects encourages student involvement beyond the confines of the classroom and curriculum. During this research, the young person comes into direct contact with the scientific and industrial community receiving invaluable advice. The judging official can contribute directly to the students' learning experience making the whole experience one that is positive and enriching.

From the local school science fair, the best projects are encouraged to enter the Regional Science Fair and compete against projects from other schools for awards donated by local industry and scientific associations. Here the competition is keen but a strong emphasis is placed on learning more about science using local facilities and resource personnel and through dialogue between the students.

The Canada-Wide Science Fair started in 1961 and provides scholarships, trips and awards, donated by national corporations, government agencies, associations and the Youth Science Foundation Canada, to deserving projects submitted from the Regional Science Fairs.

Philosophy of Judging

A judging interview could be a traumatic event for young first-time exhibitors. Most students enjoy the chance to talk about their work with someone both knowledgeable and sympathetic. The judge represents scientific authority and could influence the future scientific activity of the student. Remind your judges to be encouraging, positive, constructive in criticism, and to make suggestions about future research possibilities.

All students should be treated fairly in the amount of time given to them for interviews. Judges should always keep in mind that the judging is performed on a relative, rather than an absolute, basis. The project is being judged with others in the same category and division.

The quality of work done in planning and carrying out a project in pure or applied science, and how well the student understands the project and the subject areas is judged. Part of what needs to be assessed is where the exhibitor obtained the idea and how much outside help was received.

Judging organization and responsibilities

This section contains the organization and responsibilities of judging at both the regional and national levels. Although Regional Science Fairs may have their own divisions for judging purposes and they may not require the same number of judges, it is very important that the student exhibitors and their delegates be prepared for judging at the national level.

Organizing committee and its responsibilities

Normally there is a Judge-in-Chief, a Deputy Judge-in-Chief, and a chairperson assigned for each of the divisions (At the national level there are six divisions: Biotechnology, Computing and Mathematical Sciences, Earth and Environmental Sciences, Engineering, Life Sciences and Physical Sciences. Complete descriptions begin on page 4-6). This structure allows the various responsibilities to be spread among several people. The major responsibilities are as follows:

- to find and obtain the commitment of qualified judges for each of the divisions and for Special Awards, where necessary (and later send thank you letters)
- to facilitate the briefing, orientation and instruction of all judges, especially the new ones (also provide name badges and judging guides)
- to establish the layout, identification and screening of projects at registration (screening assisted by safety committee)
- to organize the judging - explain the ranking process for projects, allocation of projects to judges, and provide rooms for marking and discussions (also arrange for meals and refreshments)

The Judge-in-Chief and the Deputy do not judge. These two people, in conjunction with the division chairperson, organize the judging and ranking processes used in each category of the divisions. They ensure that there is suitable subjective interaction among the judges in the ranking of winners in each division and category.

Early project registration is important so that sufficient judges can be obtained, projects can be screened for safety and animal care problems, a floor plan can be set up and judges can be assigned their projects.

Judging teams are normally three to five people, who individually judge eight to ten exhibits. Back-up judges should be arranged to cover for no-shows or sudden problems. Each judge should be prepared to write a brief positive critique of the projects he/she judges.

To help predict project numbers and therefore the number of judges needed, some regions establish quotas for participating schools or school boards. Compulsory advance registration will also help in operations planning and pre-submitted project summaries will facilitate judging.

Selection of Judges for Regional Science Fairs

Plan for and book your judges well in advance of the fair. This is especially important if other regions in your area are having fairs around the same time.

Prospective judges include:

- local scientific professionals (e.g. pharmacists, farmers, nurses, engineers, accountants)
- principals and teachers from public, separate and high schools in your area
- qualified parents and representatives from public support groups
- qualified local government officials
- board of education officials, superintendents and science consultants
- qualified former science fair participants
- suitable senior students for elementary grades

Orientation

A carefully planned training session must be held to cover such items as:

- the philosophy and importance of judging
- the judging procedures used at your fair
- the actual timetable of the fair
- the actual judging process using slides or videotapes
- the need for positive reinforcement and more emphasis on placing than actual marks
- the different levels of science fair projects and how the emphasis is placed

Awards

Introduction

Students have invested much time and effort into their science fair projects. To recognize this, all students should receive a ribbon or certificate of participation. Other awards should be offered to top students.

At the regional level, awards offered through the YSF Canada - coordinated Regional Science Fair Awards Program are given. In addition, regions may offer prizes sponsored by local businesses or community clubs.

Types of awards

There are many interesting prizes that can be awarded to the students for their work. Cash awards are not a necessity.

For gold, silver, bronze, and honourable mentions, a certificate is recommended plus a ribbon, badge, or medal. The YSF provides certificates at cost for gold, silver and bronze places and honourable mentions as well as for participation at the regional fair. Your school P.T.A. may be willing to pay for these or arrange for donations from local businesses.

Alternative non-cash awards are appropriate and can be donated by specific groups or companies. These include:

- calculators, radios, microscopes, rock sets
- books from the local library or vouchers from retail bookstores
- visits to research facilities or a local hospital tour
- summer employment, admission to lectures, camps, etc.

Some awards can involve special groups:

- trophies from scientific organizations or associations for projects in their particular field
- computer awards from a local computer retail outlet
- People's Choice Award where the public vote for their choice as the best exhibit

It is important to recognize the accomplishments of students before their peers. You may decide to have two award ceremonies for your science fair—one on the night of the fair when the results are announced to the public, and one at a students' assembly at the end of the year. Students who are unable to participate in the fair for whatever reason (e.g. too young) are encouraged by the recognition they see given to the fair participants and are then eager to participate in the next year's fair.

Regional Science Fair Awards Program

The Youth Science Foundation Canada coordinates the Regional Science Fair Awards Program, which makes prizes available to each of the affiliated science fairs. Prizes — such as certificates of recognition (all awards), books, and subscriptions to magazines, as examples — recognize students who excel in their Regional Science Fairs.

This awards program was introduced in 1984 to complement the awards already available at the Canada-Wide Science Fair. Many outstanding projects are not able to proceed to the CWSF, and the Regional Science Fair Awards Program provides the opportunity for more of Canada's promising young scientists to receive the recognition they deserve. In fact, it is recommended that projects selected for the CWSF not be considered for the awards offered through this program, with the exception of CWSF travel prizes. In this way, the greatest number of students can be both recognized and encouraged in their pursuits.

Sponsoring organizations may change slightly from year to year, and therefore the prizes offered each year may change. Details of the awards offered and criteria will be made available to each affiliated region. The promotional brochure is usually distributed in October.

A complete package, including instructions and certificates of recognition, bearing the sponsor's name, will be made available to the regions in February. Therefore, the certificate can be presented to the student at the region's awards ceremony. We would ask that the Master of Ceremonies make an announcement recognizing the YSF Canada's efforts in making these prizes available to the region.

Eligible categories include junior (grade 7-8; Secondary I and II in Quebec), intermediate (grade 9-10; Secondary III and IV in Quebec) and senior (grade 11,12 and OAC or equivalent; Secondary V and CEGEP I in Quebec).

Distinguished Service Awards

The Distinguished Service Awards (DSA) recognize a maximum of five volunteers annually who have made outstanding contributions, through innovation, long service, or leadership, to the Foundation or its youth programs at any level. Examples of eligible service are provided in the rubric, *Distinguished Service Award Criteria* as Appendix I.

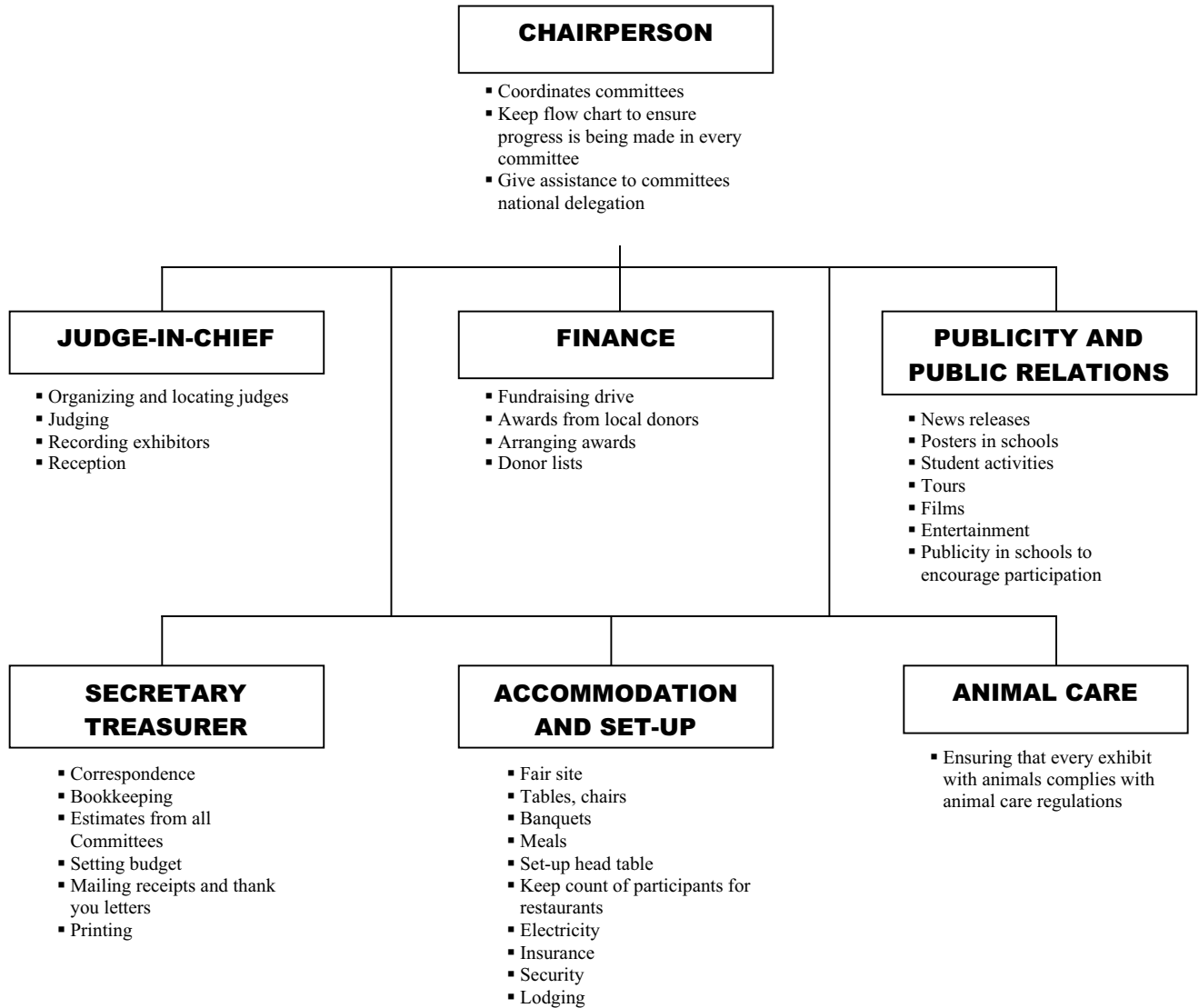
Any organization, committee or individual at the regional, provincial, zone or national level may make a nomination using the form provided in Appendix I. A person may be nominated more than once, and a nomination remains in effect for up to three years. Awards may be granted posthumously. Nomination must be received by YSF Canada by January 31 to be considered for the current year.

The National Science Fair Committee evaluates all nominations for the current year and any held over from the previous two years. Recommended recipients are submitted to the YSF Canada Board of Directors for approval.

Recipients receive an engraved, commemorative plaque and are highlighted in a press release prepared by YSF Canada. Presentation of the award usually takes place at the recipient's Regional Science Fair or at the Canada-Wide Science Fair, depending on the origin of the nomination. Profiles and photos of the recipients for the current year are displayed at the CWSF.

Organization and Responsibilities

Suggested Organization



Chairperson

The Chairperson, who may be assisted by a Vice-Chairperson, presides at the meetings of the Regional Science Fair Committee, and leads his/her Committee Chairpersons toward the accomplishment of established objectives. He/she shall see that each subcommittee Chairperson fulfills his/her appointed duties. Duties should include: affiliation with the YSF; affiliation contracts to schools (optional); registration and travel arrangements of exhibitors and delegates for the CWSF; and report of science fair to YSF.

Records should be kept outlining deadlines and objectives of each subcommittee.

Suggested timetable of some of the chairperson's duties

June	<ul style="list-style-type: none"> ▪ Confirm committee members and responsibilities ▪ Initiate long range funding requests ▪ Review information from CWSF (delegate's report)
October	<ul style="list-style-type: none"> ▪ Review treasurer's budget, Finance Committee's plans ▪ Review program ▪ Complete Information packages for schools (sample booklet is available from YSF Canada)
November	<ul style="list-style-type: none"> ▪ Progress reports re: judging, fundraising, program, logistics ▪ Review YSF Canada Guidelines and Procedures Manual revisions ▪ Review awards needs ▪ Distribution of information to schools, sponsors, etc.
January	<ul style="list-style-type: none"> ▪ Registration information to schools, if not included in Oct. package ▪ Selection of CWSF Delegate, alternate ▪ Committee reports
February	<ul style="list-style-type: none"> ▪ Detailed committee reports ▪ Review publicity plans, school tours, etc.
March/Early April	<ul style="list-style-type: none"> ▪ Conduct your fair ▪ Be good with the press ▪ Help bring resources to your committee, but don't do their work ▪ Read CWSF Material, then give it to delegate ▪ Supervise delegate meeting with CWSF Exhibitors ▪ Ensure CWSF registration is complete and payments made by due dates ▪ Review successes and problems of the fair
May	<ul style="list-style-type: none"> ▪ Reports from committees ▪ Nominate new committee ▪ Select next year's site

General Activities

- Oversee updating, preparation and distribution of agendas, minutes, handbooks, newsletters, etc.
- RSF representative to Boards of Education, media, parents, sponsors, etc.
- Chair meetings
- Communicate with YSF Canada as needed

Other Activities

- Look for opportunities for improvement. Try to move your group forward in some way each year.
- Implement Rules relating to Use of Animals and Use of Humans throughout your region. Teachers are generally unaware of these, and your RSF can be a real service to your community.
- See if your RSF qualifies as a charitable organization. Most do.
- Communicate with neighbouring regions if you need examples of booklets, committee structures, etc. YSF has some samples on hand.

- Report, with exhibitors, to as many sponsors and Boards of Education as you have time for.

Accommodation and Set-up Committee

This committee is responsible for all physical arrangements related to the assembly, maintenance and disassembly of the fair site.

Duties include:

- | | |
|---|------------------------|
| • Fair site secured | • Insurance |
| • Tables and chairs secured | • Security |
| • Banquets arranged | • Lodging |
| • Arrange head table | • Registration |
| • Number of participants for restaurant | • Projectors & screens |
| • Meals | • Floor plan |
| • Record of Exhibitors | • Set-up personnel |
| • Electricity | • Take-down personnel |
| • Janitor | |

Secretary-Treasurer

The Secretary-Treasurer will keep accurate minutes of all meetings. He/she will: receive and reply to all correspondence; receipt and acknowledge all financial contributions; prepare a budget for the science fair; keep an accurate record of all receipts and expenses; and will submit a closing financial report. He/she will pay all bills promptly after receiving the Committee's approval.

Duties include:

- | | |
|--|-----------------------------|
| • Bookkeeping | • Estimates from Committees |
| • Budget | • Correspondence |
| • Prepare statement of income and expenditures | |

Finance Committee

The finance committee's responsibility is to find the money to pay the bills. Often the Vice-Chairperson serves on this committee to ensure continuity of contacts. The following ideas may help: letters to businesses, personal canvas of business (most effective, requires several persons), sale of souvenirs, chocolate bars, etc, admission charge at fair, bingos, raffles (have students sell tickets), obtain service club or professional society sponsorship, telephone solicitation.

Duties include:

- | | |
|----------------------------------|---------------------------|
| • Begin financial campaign | • List prospective donors |
| • Send proposals | • Make personal calls |
| • Prepare awards list for judges | |

Sample Budget

EXPENSES	Last year's figures	This year's estimate
Affiliation Fee	\$	\$
Rent	\$	\$
Telephone	\$	\$
Postage and Courier	\$	\$
Printing	\$	\$
Stationery	\$	\$
Supplies	\$	\$
Bank Charges	\$	\$
Insurance	\$	\$
Advertising	\$	\$
Contingencies	\$	\$
Rent of Tables	\$	\$
Awards	\$	\$
Banquet	\$	\$
CWSF -Travel Fees	\$	\$
-Registration Fees	\$	\$
Tours	\$	\$
Other	\$	\$
	\$	\$
INCOME		
Donation	\$	\$
Dues	\$	\$
Sales	\$	\$
Fees	\$	\$
Admissions	\$	\$
Entry Fees	\$	\$
Other	\$	\$
TOTAL	\$	\$

Fund Raising

A fundraising booklet for Regional Science Fairs was developed in 1996 by a YSF Canada volunteer. Each Regional Science Fair will receive a copy of the booklet upon affiliation. For a minimal fee, additional copies can be obtained by calling YSF Canada.

Topics in the booklet include:

- Effective fundraising
- Developing a fundraising strategy
- Implementing your plan
- Evaluate your plan
- Media issues-fundraising
- Registering your science fair as a Charitable Organization

Publicity and Public Relations Committee

This committee is responsible for maintaining liaison with local press, radio and television outlets. It will prepare press releases, display posters, billboards, banners, bumper stickers, advertisements, and radio and television commercials. It will be responsible for the

communication link between the fair and the schools, and arrange for distribution of information to science teachers and students. Announce dates and times through schools, local papers, TV, radio and posters. (The media will likely put on flashes as a public service at no cost to the fair.) It would be advantageous to have at least one journalist on the committee. Science fair exhibitors are not ordinary people and stories of their accomplishments are both newsworthy and constructive.

Duties include:

- News releases
- Student activities
- Films
- Publicity in schools to ensure participation
- Posters in schools
- Tours
- Entertainment

General Information

Description

The Canada-Wide Science Fair is a national exhibition and forum created by YSF Canada to showcase the achievements of Canadian youth participating in the National Science Fair Program. It is the premier event and pinnacle of achievement for students and teacher volunteers participating in this program.

CWSF goals

- Identify and develop student talents in science and technology.
- Build self-esteem for participants.
- Compare peer achievements in science and technology.
- Facilitate student networking and enhanced communication skills.
- Provide role models for regional school children.
- Leave a financial legacy in the community to promote future extracurricular science activities.
- Advance YSF Canada's position as the leading organization in Canada providing innovative extracurricular science and technology education programs for youth.
- Establish the reputation of the Host Community for educational support and hospitality.
- Develop a sense of national unity and good citizenship through science

Theme

The CWSF Host Committee is encouraged to develop a topical theme to customize their involvement in the CWSF and to unify the effort of the many parts. For example, the theme of CWSF '92 Sudbury was "Voyage of Discovery" whereas the theme at CWSF '93 Rivière-du-Loup was "Science-Go for it."

Mascot

A CWSF mascot is also highly desirable, particularly when it is associated with the region (e.g. The Beluga Whale of CWSF '93 Rivière-du-Loup, and the Woolly Mammoth of CWSF '95 Whitehorse).

Structure

Program

The CWSF, with arrival and departure days, is eight days in duration. It occurs every May with arrival and registration on Saturday or Sunday and departure on the following Saturday or Sunday immediately preceding the Monday, Victoria Day Holiday.

Arrival

The Host Committee meets arriving exhibitors and delegates at the airport or, for surface travelers, at the CWSF Registration Centre. Transportation is provided for air travelers from the airport to the fair site. Luggage and projects are included in these arrangements.

Registration

Registration occurs on arrival at the fair site and accommodation is assigned. Meal arrangements are explained at that time.

Set-up

Set-up of exhibits and safety checks must be completed by the deadline, set by the Host Committee in collaboration with the Judge-in-Chief and the NSFC.

Departure

Exhibits are usually dismantled and packed for return shipping on the following Saturday afternoon.

Judging

Two days are committed to judging. Division judging is held on Monday or Tuesday and Special Awards judging on Tuesday or Wednesday.

Photography

During the judging process, each exhibitor will be photographed with her/his project.

Awards Ceremony

Friday is awards day. It begins with local school students and VIPs visiting the exhibits in the morning. The Awards Ceremony is in the afternoon and a closing banquet is held that evening.

Events and Activities

The rest of the week is filled with special events and activities. There is a general briefing to set the guidelines for behaviour during the week. This is followed by an opening banquet to officially declare the CWSF in session. Student and delegate social and recreational activities are usually held in the free time between scheduled events. All scheduled events are to be concluded by 9:00 pm on nights prior to judging days to allow exhibitors a chance to get proper rest. The activities vary with the planning of each Host Committee.

Tours

It is the objective to have one major tour organized by the Host Committee to showcase a “noteworthy” local tourist attraction that is associated with the region. This is up to one day in length and is usually held Wednesday or Thursday. Mini tours of the Host university campus and special research venues may also be organized.

Workshops and Student Science Forums

Delegate workshops, also a feature of the CWSF, provide a forum for professional development. Presentations examine national issues in science education, or provide opportunities to learn from practitioners in industry.

Student workshops of a similar nature, project demonstration sites and student forums for the presentation of science papers on student projects are also being contemplated by YSF Canada for future CWSFs.

Space

The typical CWSF must provide space for a minimum 350 project exhibits each occupying a linear 1.2 metres wide, by 0.8 metres deep, by 3.5 metres from the floor. In accordance with Fire Marshal regulations, there must also be sufficient space for aisles and visitor circulation. A large arena or gymnasium currently meets these specifications.

Participation

Participants at the CWSF consist primarily of:

- the student exhibitors — the medalists identified at affiliated RSFs;
- delegates — the community volunteers in charge of RSF student exhibitors;
- the Host Committee and its supporting volunteers;
- the YSF Canada office staff, including the Executive Director;
- the YSF Canada National Chief Judge, the Deputy Chief Judge, the Grand Awards Judging Committee, and the Chairperson of the International Program Committee;
- the CWSF Chief Judge and the Division judges;
- the Special Awards judges;
- the foreign exhibitors and guests invited by YSF Canada through its International Program;
- the VIPs and sponsors invited by YSF Canada and the Host Committee;
- media representatives invited by YSF Canada and the Host Committee;
- the YSF Canada Board of Directors;
- the YSF Canada National Science Fair Committee;
- the Chairpersons and special representatives of other YSF Canada youth programs;
- the local student visitors; and,
- members of the future Host Committees.

Rules and Regulations

Eligibility

Student Exhibitor

A student must be under 21 years of age and registered in grades 7-12 (OAC in Ontario) or equivalent. CEGEP I students from Quebec are eligible, but community college students are not.

In situations where local culture and lifestyle typically lead to interruption(s) in a student's high school education, students 21 years of age for the duration of the Fair, will be allowed to participate at the CWSF, provided the application is approved by three members of the National Science Fair Committee (one member shall be the current chairperson plus one other executive member and one zone representative). The applicant must be registered as a full time high school student who has not completed a high school diploma or equivalent.

The student must submit a document from the principal/teacher clarifying why his/her education has been interrupted. The student will be eligible to receive any award for which the project qualifies.

School

The student may be registered in a public, private or parochial school in Canada, or may receive home instruction.

Affiliated RSF

Students must have won top honours in a regional or provincial science fair affiliated with YSF Canada for the current year.

Exhibit classification

Divisions

Exhibits are classified by divisions:

- Biotechnology
- Computing and Mathematical Sciences
- Earth and Environmental Sciences
- Engineering Sciences
- Life Sciences
- Physical Sciences

Project Types

Exhibits are also classified by type of project:

- An Experiment
- A Study
- An Innovation

(Please see page 4-5 for definitions of divisions and types of project.)

Categories

Exhibits are further classified by category:

- Junior (grade 7 and 8, Secondary I and II in Québec)
- Intermediate (grade 9 and 10, Secondary III and IV in Québec)
- Senior (grade 11, 12, OAC in Ontario, Secondary V and CEGEP I in Québec)

Group exhibits may be accepted with a maximum of two students. The category placement will be based upon the most senior member of the group.

Exhibits

General

An exhibitor may not present more than one exhibit each year nor display an identical project at any subsequent CWSF. An improved exhibit may be accepted again in competition.

However, students may only use research completed since the last CWSF. Any continuing research must document substantial expansion of investigation and students will be judged on the current year's work only. An exhibit may be entered in more than one RSF affiliated with YSF Canada per season. However, it is only eligible to go to the CWSF from the first RSF (i.e. no exhibit may have more than one chance to go to the CWSF).

Dimensions

All exhibits, including all accessories, must be confined to a table or floor space not to exceed 0.8 metres, front to back; 1.2 metres side to side; and 3.5 metres maximum height from the floor. All measurements will be made from the outermost points, including framework and appendages, and will be verified during the safety check. Exhibits exceeding these dimensions must be modified or will not be accepted (see Exceptions below). Local conditions may dictate that 3.5 metres is too high for an exhibit. Every attempt will be made to relocate such a project.

Exceptions

From time to time, an exhibitor may wish to go beyond the normal limits of the regulation project display space (1.2m wide x 0.8 m deep x 3.5 m high) to demonstrate an aspect of their project. This can only be done with the approval of the Ethics, Safety and Animal Care Policy

Committee and may not give the exhibitor an unfair advantage. The following guidelines will govern these circumstances:

- The Host Committee and YSF Canada reserve the right to assign available display space to exhibitors equally and to exclude exhibits that may be dangerous to exhibitors, visitors and the premises.
- All material should be contained within the space when it is not being demonstrated. Students may not bring supplementary material to the display solely for the demonstration. To do so may give them an unfair advantage.
- Any demonstration that exceeds the regulation project display space may be limited to the judging sessions, or to the public viewing, at the discretion of the Safety and Rules Committee.
- Safety of people in the exhibit hall and of other exhibits must not be jeopardized by the demonstration. Thus, remote-controlled vehicles, which may present a tripping hazard, need to be slow and restricted to a small floor area. Powered aircraft, whether tethered or free-flying, are not allowed to be activated.
- Where project work utilizes materials or devices that exceed the regulation space, students may represent such devices through models, drawings, videos, etc. It is not necessary to replicate research results for the judges.

Simulation of hazardous materials

Exhibits involving hazardous materials and equipment (e.g. toxic and corrosive chemicals, lasers, etc.) should use simulation at the CWSF.

Backboard Materials

Displays are to be constructed of materials that are unlikely to ignite and in the presence of fire will not allow the flame to spread readily. Recommended backboards include wood and wood products at least 6 millimetres (1/4-inch) thick, and ULC-approved display boards. Backboards constructed of other materials including corrugated cardboard, foam-core, project board, Styrofoam panels and Bristol board are not acceptable. Overlapping sheets of notes or graphs are to be stored in a data book, not stacked on the backboard. Panels can be painted with any common paint. No proof of source is required. All other coating materials must be approved by Underwriter Lab, and proof of such approval is needed (i.e. the can and its label).

All equipment must be supplied by the exhibitor or his/her RSF.

Damage

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

Definitions of 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.

A **Computing and Mathematical Science** project deals with computing, mathematical models, innovative software and hardware design, or the use of math to solve theoretical problems.

An **Earth & Environmental Science** 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.

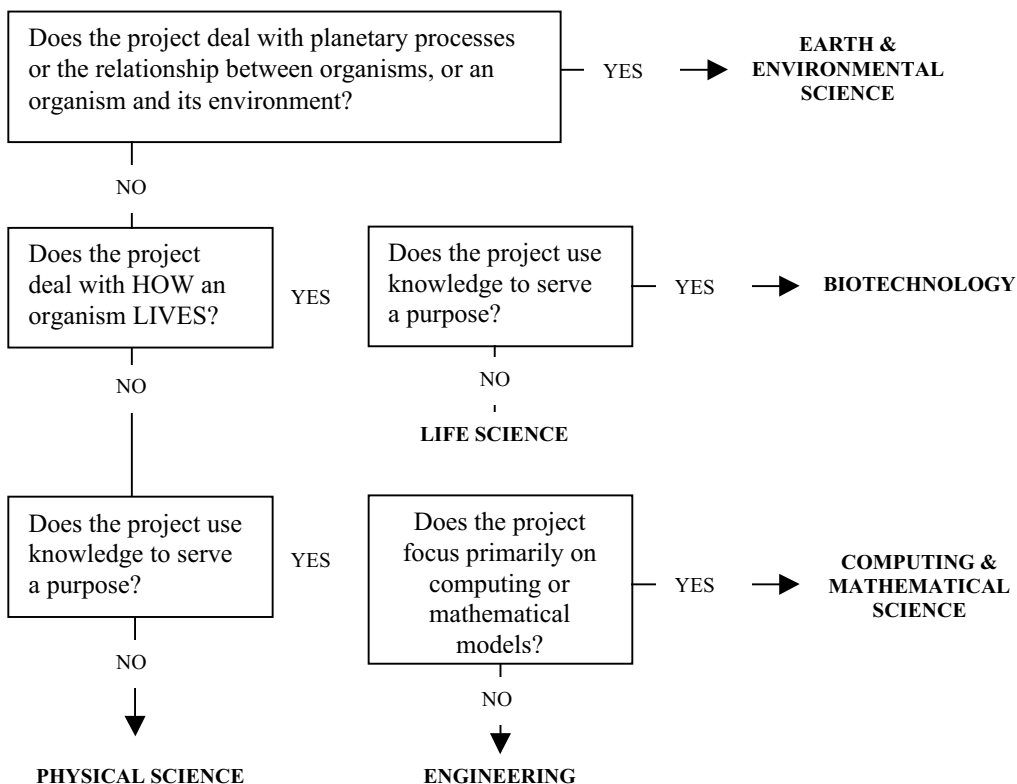
An **Engineering** project applies physical science knowledge to solve a problem or achieve a purpose.

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

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

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 exhibitor and his/her regional delegate.

Selecting a Division:



Elaboration on Divisions

Biotechnology

Within Biotechnology, crop development underscores that the interest is not just in plants, but in plants that are involved in an 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 revitalization, population management, or harvesting. All projects involving animals demand careful planning with respect to YSF Canada regulations. Study-type projects should be considered by pupils with an interest in animal science. Possible topics include enhancement of animal production, reproductive technologies, genetics and transgenics, animal health, housing, training and interactions. Microbial projects consider how 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 Sciences, not Biotechnology. The distinction is similar to that between

Physical Sciences 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 conceptualization of the project. There will be situations where the choice is not clear.

Computing and Mathematical Science

Computing Science

Computing sciences projects are applied science and technology projects that concentrate on the development of computer equipment or programs. They focus mainly on computers, their languages, their software, databases and their functions.

Projects that store and handle data should be entered in their data-specific division. On the other hand, if the project highlights a breakthrough technique that uses the computer to accomplish this task, then data are of secondary significance and the project should be entered in the computing and mathematical science category.

Mathematical Science

Mathematical science projects seek to demonstrate applications of mathematics (i.e., the search for a mathematical model) or to solve a theoretical problem. For example, in attempting to predict the shape of cacti, the use of mathematics would be central to the project. The problem provides a context for the exploration of pattern and the search for a mathematical model. Some areas of investigation in this category include algorithms, operational research (application of mathematical and computing science to solve planning or operational problems), and statistics.

Distinguishing Computing and Mathematical Science projects from others

Each year regions and students have considerable difficulty placing projects that involve a computer. Where, for example, should a project be placed in which the student has developed a piece of software that simulates the behaviour of forest fires? On one hand, the development of a software application is clearly eligible for the Computing and Mathematical Science division, but the parameters and underlying algorithms require a significant knowledge of environmental science. If this project was judged by a computer software engineer, he/she would likely focus on the design and efficiency of the code, the user interface, and the application of computing technology to a real-world problem. Meanwhile, an environmental scientist might judge the project according to accuracy and applicability of the simulation, the inclusion and control over appropriate parameters and, the student's knowledge of forest fire dynamics.

An argument can clearly be made for the value of each judge's assessment in the overall evaluation of the project. However, the student must choose a division on the basis of where he/she wishes the emphasis of judging to fall. If the student prefers to be evaluated primarily on his/her application of computing science to the problem- the algorithm and hardware/software design- then he/she should enter the Computing and Mathematical Science division. If his/her preference is for the project to be evaluated as an innovation in a particular field of science, it should be entered in that division.

When considering entering the Computing and Mathematical Science division, CWSF participants should be encouraged to consider which aspect of the project they believe best showcases their knowledge and skill- their software/hardware design, or their work in biotechnology, earth and environmental sciences, engineering, life or physical sciences. Their response is significant as we, and they, want the judging to focus on the project's strengths.

Further, while the development of interactive multimedia, relational databases, Internet web sites, analog/digital interfaces, control technology (robotics), etc. were once the domain of the CWSF's finest, they are now standard fare in most Grade 7-12 curricula across the country. With this in mind, potential entrants to the CWSF Computing and Mathematical Science division should also consider: Is this project's software/hardware design innovative, well documented and significantly advanced beyond the expectations or work of most others at a similar age/grade? If the student believes that the strength of his/her project is in software/hardware design and that the work is innovative and beyond the normal expectations

of his/her peers, then the project may be entered confidently in the Computing and Mathematical Science division. Otherwise, the student may be more successful entering one of the other divisions. In many cases where the Computing and Mathematical Science division first seems appropriate, a closer examination of the strengths and the focus of the student and the project suggest another division. However, it is important to keep in mind that the final decision regarding division placements rests with the student exhibitor and his/her delegate.

Earth and Environmental Science

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

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).

Engineering

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

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.

Life Science

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 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?

Physical Science

Physical Science projects study the relationship of factors in fields such as physics, chemistry and astronomy. Comparison testing of projects, as it is descriptive, would be included. Some projects entered as physical sciences may be more accurately entered as engineering. For example, experimenting to find "Which Materials Absorb Oil Best?" is only physical sciences, although there is an implied application in the work, such as that it is almost "Which Materials Can Absorb Oil From an Oil Spill?" Determining the exhibitors intent should help clarify.

Interdisciplinary Projects

Many projects are interdisciplinary and therefore, seem to fit into more than one division. The student(s) must choose only one of the divisions. This decision should be based on the subject area in which the student is most knowledgeable and best able to communicate their knowledge to the judge. Through the interview process, judges look for both depth and breadth in all projects and are encouraged to consult with other judges when a project incorporates another field outside their area of expertise.

Chief Judge's Recommendation

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 resets with the student exhibitor and their regional delegate.

Types of science fair projects

The judging of "scientific thought" requires special attention since a variety of different types of projects exist. The most common types of science fair projects are experiments, studies and innovations. Projects of each type are equally capable of winning top awards at the fair, providing they meet the necessary criteria.

Experiment

This is traditionally the most common type of science fair project in the life or physical sciences divisions. A winning exhibit 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 regarded as essential that any significant positive findings result from the project. It must be recognized that it is the design rather than the results that are 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. A winning exhibit in this area must be able to demonstrate that the methods used to obtain the original data involved sound scientific techniques and controls, and demonstrate insightful analysis.

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. A winning exhibit in this area must be able to demonstrate that the methods used to obtain the original data involved sound scientific techniques and controls, and demonstrate insightful analysis.

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). A winning project 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.

Project Summary

The project summary requires the students to write a concise summary of the project using a scientific style of reporting. Students are required to select only what is important, and state it in a concise way. Eight copies must be sent — six copies will be distributed to judges, one copy will be retained by the Host Committee (CWSF Chief Judge), and one copy is for YSF Canada. Each individual region should send its summaries. **The deadline for submission is advertised in the CWSF Registration Booklet.**

Each exhibitor will be required to provide a project summary of **no more than five** 8.5 x 11-inch pages, word-processed or typewritten and double spaced on one side only. The pages must be stapled together with the project highlight sheet supplied by YSF Canada. An inside title page should not be included, nor should the pages be enclosed in any cover or folder.

Appendices, other than a bibliography, are not permitted in the project summary. Reports of excessive length will be penalized, and only the first five pages will be read.

A bibliography is mandatory: All the sources consulted must be mentioned (volumes, articles, audio-visual, documents, web sites, interviews, etc.). Quotations and sources within your report must be clearly identified. This bibliography is to be included as an appendix to your five page summary. Exhibitors must also complete a form, which is part of the registration package, detailing any outside assistance provided by others, see Appendix L.

A complete project summary includes:

- Background, Purpose and Hypothesis: why the project was done and what was hoped to be achieved.
- Procedure: very brief outline of the significant materials and methods used.
- Results and Conclusions: no raw data or observations are to be included.
- Acknowledgements: recognition of those individuals, institutions and businesses that provided significant assistance in the form of guidance, materials, financial support or facilities. This must include any reference materials that are not the student's.
- Proof of requirements, when specified by YSF Canada regulations.
- Bibliography as an appendix to the 5 pages.

If an earlier version of the project was submitted in another year, the highlight sheet must outline the changes or modifications made by the exhibitor(s).

This summary will be used in judging. It is worth 10 of the 100 judging points and may subsequently be published by YSF Canada or award sponsors. The summary must be kept brief and to the point: judges cannot be expected to adequately digest more than a few pages of information at a time.

Safety regulations

General safety

- Safety of the public is a prime consideration. Suitable precautions must be taken to prevent the possibility of personal injury, property damage, and the legal action that could result from a lack of concern for safety.
- Exhibits must be sturdy, with moving parts firmly attached and approved for safety. Each exhibit must be self-supporting. Electricity (AC 110 Volt, 60 Hertz) will be supplied, if requested, but no gas or water outlets will be provided. Switches and cords must be of the approved variety and circuits must be protected by fuses or circuit breakers. Cell or battery-fed circuits should be both safe in design and operation.
- All sharp edges or corners on prisms, mirrors, enclosures, and glass and metal plates must be removed or otherwise protected.
- The length of hoses or extension cords is to be kept to a minimum and out of the way to eliminate tripping hazards. Use tape for securing.
- Aisles and exits should not be obstructed.
- Moving exhibits (e.g. radio-controlled vehicles, robots) should be restricted to the regulation display space. The Host Committee will try to provide an exhibition area to safely demonstrate projects that require more space than the regulated exhibit display space.
- In addition to the regulations noted here, there may be local municipal or provincial regulations that must be followed. The Host Committee shall share any such restrictions with RSFs in September preceding the fair.
- The exhibits must comply with all YSF Canada use of humans and use of animals regulations as outlined on pages 4-12 to 4-17, and the CWSF Safety and Regulation Checklist, contained in Appendix C.

Fire safety

- Certain restrictions have been defined on the construction of displays to reduce the possibility of accidental fire during the fair, and in the event of fire, to allow for safe evacuation of the building.
- The Host Committee will be responsible for ensuring that fire extinguishers of proper size and rating are available in the exhibition area. The Host Committee will establish a fire evacuation plan, and an exhibit hall layout that minimizes long rows in order to reduce flame spread.
- Combustible material must not be used near a heat source.
- Open flames must not be used.
- Smoking is not permitted in the exhibit area.
- Packing material must not be stored in the exhibit hall.

Chemical safety

- No containers of toxic or flammable chemicals are allowed.
- Dangerous chemicals are not allowed—this includes prescription drugs and over-the-counter medication.
- Substitutes for toxic and corrosive chemicals must be used. Common salt, for example, can be used to simulate chemicals such as ammonium nitrate. Water may be used instead of alcohol, ether, and other highly flammable liquids. Molasses can be used to represent petroleum products. When chemicals are simulated, they should be labeled with the names of the substance they represent preceded by the word “simulated.” No project will be penalized because the key (but potentially dangerous) components were not on display.

Electrical safety

- As low a voltage as possible must be used.
- A ground fault interrupter for electrical leaks and faults must be used. The Host Committee will ensure that such units are installed on the main electrical control panel serving the entire exhibit area.
- At the end of the day or the viewing period, all electrical exhibits must be disconnected, and power bars switched off.
- Only CSA-approved extension cords in good repair shall be used.
- Where practical and necessary, it is recommended that pilot lights be used to indicate that the voltage is on.
- Cord-connected electrical appliances should have a 3-wire conductor with ground or be CSA-approved.
- An insulating grommet is required at the point where the service enters any enclosure.
- Electrical devices must be protectively enclosed as far as it is practical.
- Any enclosure must be non-combustible. All non-current carrying metal parts must be grounded.
- No exposed live parts over 36 volts are allowed. Current (amperage) must be low so as not to cause any discomfort or danger if touched.
- Wet cells shall not be used because of the hazardous chemicals involved.

Structural and mechanical safety

- Exhibits must be of a safe design with adequate stability to keep from tipping.
- Dangerous moving parts such as belts, gears, pulleys and propeller blades must be suitably guarded.
- Pressurized vessels should have a safety valve.
- Compressed gas cylinders are not allowed.

Use of firearms and hazardous equipment

YSFC and Regional Science Fairs allow students to conduct research involving hazardous equipment and firearms as long as students adhere to federal and provincial/territorial regulations and guidelines that are designed to protect the safety of the researchers. The relevant safety checklist is provided as Appendix K.

Firearms

- As of January 1, 2001, anyone possessing a firearm, even temporarily, must have a *Firearms Possession Certificate (FPC)*. Persons under 18 years of age may acquire a *Minor's Possession Certificate* and can possess non-restricted weapons.
- Minors can not possess restricted firearms or cross bows.
- As of January 1, 2003, firearms used for science projects must be registered and the person possessing the firearm must have, at all times, the registration certificate with the firearm.
- An individual may load a firearm or handle a loaded firearm only in a place where the firearm may be discharged in accordance with all applicable Acts of Parliament and the legislature of the province/territory, regulations made under such Acts and Municipal By-Laws.
- As of January 1, 2001, anyone acquiring ammunition must have a *FPC* or a *Firearms Acquisition Certificate*. On expiry, anyone with a *Firearms Acquisition Certificate (FAC)* will have to replace it with a *Firearms Possession Certificate*.

Volatile materials

Volatile materials must be handled and transported pursuant to the federal *Transportation of Dangerous Goods Act* and provincial legislation. The person handling the material must be properly trained. Explosives must be acquired, stored and handled pursuant to the federal *Explosives Act*.

Safety and supervision

Any experimental design involving firearms, and/or hazardous devices, must be passed through the Ethics, Safety and Animal Care Policy Committee to ensure compliance with regulations and restrictions. If necessary, YSF Canada will refer the project to the authorities cognizant of current regulations.

Use of hazardous equipment, dangerous goods, explosives and firearms requires proper supervision by a Designated Supervisor. This Supervisor must be directly responsible for overseeing student experimentation. In all cases, the Designated Supervisor must possess a Firearms Possessions Certificate/Hunter Safety Certificate and/or a Canadian Firearms Safety Course equivalent, and be knowledgeable in the use of the firearms or devices that will be used in the experimentation. In all cases, the Designated Supervisor must have reached the age of majority (18 years). The Supervisor must provide proof to the Regional Science Fair Safety Committee of his/her licensing and expertise in the use of a firearm, volatile substance or device, and/or explosives BEFORE the project commences.

For firearms requiring federal and/or provincial/territorial permit or registration, the student or supervisor will be expected to have the permit prior to the onset of the experimentation. A copy of the permit must be submitted to the Ethics, Safety and Animal Care Policy Committee. Only firearms/explosive devices, which have federal, provincial/territorial and municipal approval, may be used in experimentation. Proof of this approval must be presented

to the Ethics, Safety and Animal Care Policy Committee with the exhibitor's proposal in advance of beginning the experiment.

Exhibitors wanting to use firearms must show proof of a Hunter Safety Course/*FPC* and/or Canadian Firearms Safety course or equivalent. Copies of these certificates must be provided to the Ethics, Safety and Animal Care Policy Committee in advance of beginning the experiment.

It must be remembered that firearms, ammunition, dangerous goods or explosives may not be displayed as part of the project at the CWSF—students are advised to take photos of the equipment for display purposes. Further, exhibitors may not display images of humans or animals that have been injured by the use of firearms or explosives: such images are deemed to be unsuitable for general public viewing and do not add to the scientific nature of the project.

When considering a project which involves the use of firearms, ammunition, dangerous goods or explosives, it is strongly suggested that exhibitors make contact with one or more of the following agencies/government ministries: RCMP, Provincial Police, Municipal Police, Federal and Provincial Justice Ministries, Provincial Ministries responsible for hunting and fishing regulations, Municipal offices regarding the use of firearms within their jurisdiction, National and Provincial hunting organizations, federal Ministry of Mines and Resources.

Potential violations of the Criminal Code, Explosives Act and Transportation of Dangerous Goods Act must be considered and researched prior to experimentation: Criminal Code considerations that should be addressed by students and Ethics, Safety and Animal Care Policy Committees in reviewing a project include:

- Possess, trade, transfer or give as a gift a firearm to a person without a FPC or proper class of acquisition license.
- Unlawfully making an explosive.
- Possession of a weapon dangerous to the public peace.
- Unlawful storage of a firearm, ammunition or explosive.
- Pointing a firearm.
- Careless use of a firearm.
- Criminal Negligence causing bodily harm or death.
- Fail to sign vehicle properly that a dangerous good is being transported.

Other considerations may involve other Provincial and Federal acts such as the *Environmental Protection Act*, *Migratory Bird Game Act* and *Canada Shipping Act*. Students and the Regional Ethics, Safety and Animal Care Policy Committee are responsible for knowledge of and adherence to all Municipal, Provincial and Federal laws governing the materials and the use of those materials.

Display of X-ray or radiation producing equipment

If an exhibit uses x-ray equipment or any other equipment capable of emitting high-energy radiation, registration of ownership with the student's provincial government is **required**. Plans for structural protection must be submitted to the provincial government and approval requested, for which both the owner of the device and the owner of the building are responsible. A formally trained and qualified individual must be identified to exercise supervision of the operation and to take responsibility for safe performance. It will be an obligation of this individual to satisfy the Chief Inspector by exposure rate measurements or other suitable documentation that the operation is safe. Projects involving voltages above 10kV should be considered to pose a potential x-ray hazard.

Lasers and x-ray or radiation-producing equipment may only be operated during judging periods.

Microorganism safety and biohazards

The following hazardous biological materials may not be displayed at the CWSF:

- Radio-isotopes or compounds containing radio-isotopes at activities above normal background.
 - Biological toxins
 - Micro-organisms. The use of mixed cultures obtained from the environment (e.g., soils, mouth swabs) is acceptable for experimentation, but not for display.
 - Cells or tissues infected with animal or plant viruses.
- No cultures are allowed for exhibition. Photographs or simulated cultures may be used.
 - Experimentation involving hazardous materials must be carried out under controlled laboratory conditions and supervision. The name and qualifications of the supervisor should be specified.
 - No plant tissue, soil or material which could decompose shall be exhibited at a CWSF.

Recombinant DNA and biotechnological safety

Projects involving the manipulation of recombinant DNA molecules or animal viruses are allowed if conducted under qualified supervision. Evidence of this supervision, including the supervisor's name, institution, and qualifications must be included in the "Contributions by Others" form (Appendix L) and must be available at all times during the fair.

Biotechnological investigations involving enzymes pose risks of allergic reactions. Work involving DNA technology can be accomplished safely if simple precautions are taken. The use of DNA is, in itself, usually safe, but hazards can arise from chemicals and electrical equipment employed in the manipulation of DNA. Extremely hazardous chemicals, such as ethidium bromide, used to stain DNA, should be avoided. Electrophoresis of DNA fragments should use low voltages or equipment that prevents access to connections at high voltages.

Live tissue samples used in such investigations must be taken either from a continuously maintained tissue culture line already available to institutional researchers, or from animals already being used in an on-going institutional research project. Proof of where such material has been acquired (invoice or letter from supplier) must be available at all times during the fair. These animal tissues may only be displayed at the Fair if they are prepared and sealed (lamella, plastination).

Animal care

General

Regulations pertaining to projects involving animals and the display of those projects reflect different standards. While student investigations of biological processes are to be encouraged, they are subject to the same laws, ethics, and regulations as any other research. In the *Criminal Code of Canada*, the *Animals for Research Act of Ontario*, and similar legislation in other provinces, all vertebrates are afforded protection. Also, schools and science fairs are explicitly included in the definition of "research facility" in Ontario. The CWSF regulations described here are written in view of these laws.

The display of a project is further restricted by the YSF Canada in view of the need to maintain a positive public image towards science fairs. The restriction is due in part to a lack of essential expertise and experience on the part of the student investigators and their immediate supervisors. There is also a desire (on the part of the general public and research community) to maximize the efficiency of animal use and to impress this on the students, especially regarding scientific merit and value. RSFs should adhere to the following regulations and take steps to ensure that schools within their region are thoroughly familiar with them and conform to them in school fairs. The regulations must certainly be adhered to for the CWSF, so it would be in the best interests of all concerned if the guideline were followed faithfully from the outset.

Visiting projects from other countries should be informed of these regulations sufficiently before the fair so that they do not display projects contradictory to the Canadian regulations and milieu. Biological experimentation is subject to legal restrictions including, among others:

- Criminal Code of Canada, Section 446, Cruelty to Animals;
- Convention for International Trade on Endangered Species;
- Canadian Wildlife Service;
- *Health of Animals Act*, Bill C-66
- *Guidelines of the Canadian Council on Animal Care*;
- *Animals for Research Act* (Ontario); and
- *Regulations for Housing, Care and Treatment of Animals Used for Biological & Medical Purposes* (Alberta)

Regulations

Any experiments involving human beings and other vertebrate animals may be passed through the Ethics, Safety and Animal Care Policy Committee to ensure compliance with the above-mentioned regulations and restrictions. If necessary, the YSF Canada will refer the project to appropriate authorities cognizant of current regulations and relevant aspects regarding scientific merit, for guidance and suggestions for performing the work.

Lower orders of life (bacteria, fungi, protozoa, insects, plants and invertebrate animals) can be used in experimentation to reveal valuable biological information relevant to the higher orders.

Vertebrate animals (birds, fish, mammals, reptiles, amphibians) are not to be used in any **active** experiments which may in any way be deleterious to the health, comfort or physical integrity of the animals.

Observation of wild animals, animals in zoological parks, farm animals and pets is permitted. Observation of wild animals falls within the definition of hunting (or fishing) in some jurisdictions. Students should also obtain advice and permission from conservation authorities to ensure that they are not interfering with the animals' normal lifestyle and well-being, and to ensure that their project is permissible. A permit may be required.

For example, behavioural experiments with positive rewards are permissible only if the animal is not placed in a stress situation. Training an animal to travel through a maze to receive a food reward is stressful, particularly if the animal is hungry, and is therefore not permissible. However, allowing an animal to make a free choice (of food, for example) is permissible, as long as the animal is not stressed before offering the choice (e.g., by withholding food).

Studies of embryos are similarly restricted to observation, without intervention with drugs or other chemicals, or manipulation of physical conditions to test the resiliency of the animal. If eggs are hatched, the offspring are to be raised normally. Otherwise, all embryos must be destroyed by freezing at 85% of the normal incubation period (18 days for chicks).

Cells and animal parts (including organs, tissues, plasma or serum) purchased or acquired from biological supply houses or research facilities may be used in science fair projects, but should not be displayed at the fair. Evidence of the source of the materials (e.g., bill of sale) must be available at the display.

The acquisition of animal parts should involve either the services of biological supply houses or research facilities, or involve salvage from other sources. Salvage from found carcasses (e.g., road kills) is discouraged due to serious health risks and other constraints.

- If the acquisition involves salvage from another research project, where the animal has been killed for other legitimate purposes in a legal and humane manner, then the disposition to the science fair project must be part of the original research proposal, and such disposition must have been approved by the Research Committee or the Animal Care Committee of the institution involved. Reference to the original project should be made on the science project display.

- If the acquisition involves salvage from the food industry, then the source must be acknowledged.
- If the acquisition involves hunting, fishing or trapping, then those activities must be done in accordance with prevailing regulations, and precautions must be taken to ensure the safety of the student(s). The taking of animals other than for food, without explicit approval, can constitute cruelty. Permits for research are available from conservation authorities, and should be displayed at the project.

Display of animals & animal parts

Students working on biological projects may involve animals as outlined above. The display of the project is to be a report of completed work, and thus further restrictions are imposed. Also, science fair organizers should try to reduce the potential for adverse reaction from visitors and other exhibitors.

Live microorganisms and vertebrate or non-vertebrate animals shall not be included in the display, although appropriate photographs may be available in the report.

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. Soft tissue specimens are not acceptable if they are preserved in formaldehyde, a dangerous chemical excluded under the chemical safety section of these guidelines. Sealed tissue samples on microscope slides are permissible.

Thus, porcupine quills (safely contained), shed snake skin, feathers, tanned pelts and hides, antlers, hair samples, skeletons and skeletal parts are permissible, while organ and tissue samples are not. However, photos, videos or slides of organ and tissue samples may be available for viewing upon request, but may not be obviously displayed.

Guide for ethics review of human research

Ethics review requirements

The Foundation requires that all research involving human participants conducted as a project competing in the CWSF, or an affiliated RSF, satisfy ethical and safety rules. This ensures that the welfare and safety of the participants as well as the researchers are considered and protected. The ethics review process should involve the student's supervising teacher, members of a bona fide research institution or hospital practiced in the ethics of human research, or the YSF Ethics, Safety and Animal Care Policy Committee. This will provide the researchers with an appreciation for the requirements and safeguards existing in law regarding experimentation and humans.

Note: Projects dealing with forensic science topics must preserve the anonymity of any human victims, and project displays must avoid sensational or gratuitous macabre images.

Ethics reviews

The Foundation's Ethics, Safety and Animal Care Policy Committee invites inquiries regarding the ethics of any planned human (or animal) research project. It will assist in the development of an acceptable research design. It will also review all projects entered in the CWSF to ensure they are ethically approved and thus eligible for competition.

Definitions of human research, researcher, participant

Human research refers to any project that involves the generation of data about persons beyond that which is necessary for the person's well-being. This includes non-invasive methods such as: surveys, interviews, observations of or field work with individuals, administration of psychometric and other tests, examination of records and exercise testing. It may also involve invasive procedures, such as blood sampling, tissue sampling, and insertion

of cannulae. A researcher is a student data or information collector, or assistant, involved in research activities involving humans. A participant is a person, who by virtue of his/her participation in a data-generating situation or activity, is a source of primary data, and bears any risks as the research is being carried out.

The Application Form

The supervising teacher supervises and accepts responsibility for the safe and ethical conduct of the project.

The student researcher(s) will collect the data. All students involved must be listed even if assisting the principal investigators. The title of project should describe the focus of the project, and also be succinct. See Appendix J for a sample application form.

Summary of Proposed Research

The purpose

The purpose describes the reason for conducting the project, and briefly outlines literature which has shaped the project proposal.

The participants

The participants who will be involved should be described with respect to age range, gender, numbers required and other identifying characteristics. Special consideration is needed for the involvement of children or other vulnerable participants. Describe the source of the participants and the manner in which they will be recruited. Attach a copy of any covering letter. Studies involving students and/or teachers often require the explicit permission of Board of Education officials. Researchers are reminded of the potential for certain participant groups to experience or receive undue pressure to volunteer as research participants, and are to minimize this perception. Members of distinct cultural groups, legally incompetent people and children are example of special populations that require special effort to ensure that informed consent is being given. Include details of any compensation for participation in the study. It should not be so high as to induce a person to volunteer, or cause a person to continue in a study past the point at which he/she would otherwise stop.

Procedures

Describe procedures in detail and in terms that can be understood by reviewers without specialized knowledge of the research area. For invasive procedures, indicate awareness of and willingness to follow universal precautions for proper handling of blood and body fluids. These guidelines are widely available. If invasive procedures are used, give the name and title of the person conducting these procedures as information about his/her training. When materials are to be ingested, give information on dosage, frequency and possible side effects. Drugs, whether prescription or otherwise, are not to be used. Oral and topical applications of test materials are the only acceptable methods of administration. Studies involving exercise testing must include a description of all tests, a copy of the medical screening form used to determine that the potential participants are in good health, and a statement about exclusion criteria. Describe arrangements for medial supervision of the testing. The 1986 American College of Sports Medicine Guidelines for Exercise Testing chart is offered as a common guideline. For non-invasive studies, attach a copy of all test materials to the Research Proposal form. Indicate the time required for participation in the study.

AMERICAN COLLEGE OF SPORTS MEDICINE GUIDELINES FOR EXERCISE TESTING						
	Apparently Healthy		Higher Risk		Diseased	
Age	<45	45+	<35 without symptoms	35+ with symptoms	Any Age	Any Age
Maximal exercise test recommended before exercise program	No	Yes	No	Yes	Yes	Yes
Physician attendance recommended for submaximal testing	No (<35)	Yes	Yes	Yes	Yes	Yes
Physician attendance recommended for submaximal testing	No	No	No	Yes	Yes	Yes

Source: *The American College of Sports Medicine: Guideline for Exercise Stress Testing and Prescription, 3rd ed. Lea and Febiger, 1985*

Anticipated risks and benefits of participation

A complete and clear description of all known or anticipated risks and benefits of participation, whether physiological, psychological, economic and/or social in nature. Indicate how risk will be minimized to the extent reasonably possible. In cases of tasks involving psychological risk, indicate preparations to deal with any negative impact attributable to participation in the study. All studies must have some benefit in order to justify their conduct. Thus, a description of known and/or potential benefits to the participants, and/or society, is required.

Informed consent

Participants must give informed consent to participate in any science fair project before it begins, and this is normally obtained in writing. Parental approval is required for the participation of minors as research subjects. Details, which must appear in the consent letter to ensure the participants have been properly informed and thus given free consent without pressure to participate, include:

- name(s) of investigator(s)
- school, supervising teacher, telephone number
- description of the procedures
- description of risks and benefits from participating
- details of time commitment
- details of any plan to re-contact participants
- details about their right to withdraw at any time without fear of reprisal
- information about how to communicate a decision to withdraw from the study
- statement that the project has been reviewed and received ethics approval from whatever authority was consulted.

There may be circumstances under which written informed consent cannot be reasonably collected. For surveys, consent may be assumed by the completion of the survey. In these circumstances a detailed explanatory letter should accompany the questionnaire, and provide identical information as listed above.

Confidentiality and anonymity

The confidentiality and anonymity of all participants must be maintained. Use coded systems of references; no identifying information may be used. Also, appropriate safeguards for storage and access to data, or destruction of data, must be planned.

Feedback

Feedback of the findings to the participants, their parents and/or teachers should be part of the plan. If deception is used, provide details about the nature of the deception and why it's needed. Participants in such a study must receive adequate and immediate debriefing at the end of their participation. This debriefing, provided orally and as a written handout, should tell why the deception was required, offer the opportunity to answer any questions and then seek their written consent to use all information obtained from them.

Sample letters of consent, parent permission letters and pre-exercise medical screening forms are available on request.

Appreciation and acknowledgement for assistance in the development of these guidelines goes to Dr. Susan Sykes, Office of Human Research at the University of Waterloo, Dr. Carl L. von Baeyer, Professor of Psychology at the University of Saskatchewan, and Dr. Bill Ross, Faculty of Medicine at the University of Ottawa.

Scientific Merit

A science project should strive to have true scientific value and originality.

Ethics policy

A YSF Canada Ethics, Safety and Animal Care Policy Committee shall establish policy and shall review all projects for compliance in these areas of concern.

Attendance

An exhibitor must be in attendance at his/her display at all times during the period that the CWSF is open to the general public, unless a special arrangement is made with the CWSF officials responsible for exhibits.

Display of ISEF participation and prior awards

In order to ensure fairness of judging, CWSF exhibitors are not to identify participation in the ISEF, and/or awards won in any other science fair, in any promotional form (verbal, written, clothing) during the judging process.

Conduct

Student exhibitors are responsible for their behaviour at the CWSF and must follow the rules set forth by the adults-in-charge who accompany them from RSFs to the CWSF and by the CWSF Host Committee.

Failure to meet these standards of conduct can result in the exhibitor being sent home at his/her own expense.

Disqualification

Disqualification may occur prior to, or at any time during and after the fair. Upon receipt and screening of project summaries, should a Host Committee suspect a project is unacceptable, they will initiate an investigation. They must communicate with the chairperson of the National Science Fair Committee, the sponsoring RSF, and YSF Canada advisors about their concern. The Chairperson of the NSFC represents YSF Canada on matters of disqualification and, after thorough discussion with the appropriate YSF Canada officials (Executive Director, national Judge-In-Chief, Chairperson of the Ethics, Safety and Animal Care Policy Committee), communicates such a decision to the sponsoring RSF and the Host Committee. Should a similar concern be raised at any time during or after the fair, the same parties will meet to attempt to resolve the issue if possible. Failing satisfactory compliance, disqualification may occur. Reasons for disqualification of a project include, but are not limited to: incorrigible safety and size violation; violation of animal use regulations; and/or plagiarism.

Students may be disqualified from the fair for conduct injurious to the moral tone of the fair and/or behaviour that puts other people or their property at risk.

If a student is returned home after disqualification, the expenses for that trip will be the responsibility of the sponsoring RSF. Refunds, if any, from canceling a flight booked through the CWSF Travel Plan will be credited to that region. Reimbursement of registration fees will be made at the discretion of the Host Committee after considering fixed costs and expenses already paid on behalf of the exhibitor(s). Any student disqualified after the fair will forfeit all prizes and moneys awarded to him/her.

Appeal

A student, disqualified in violation of animal use regulations, may appeal his/her case to the Ethics, Safety and Animal Care Policy Committee.

When in doubt, RSF representatives should seek an advance ruling on the project from YSF Canada.

A student, disqualified for inappropriate conduct or behaviour, may appeal to the chair of the National Science Fair Committee. As soon as possible, but within 30 days of receipt of the appeal, the current NSFC Chair will convene an Appeal Tribunal consisting of the NSFC Zone Representatives not representing the student's zone, the YSF Executive Director or President, and the current NSFC Chair who serves as tribunal chair. All information from the original investigation shall be made available to the tribunal by the NSFC Past Chair who made the disqualification, the Host Committee Chair, the Zone Rep. for the students' region and the students' delegate. A successful appeal shall be limited to the reinstatement of prizes and monies awarded to the student, reimbursement of the balance of costs incurred by the region for the extra trip home, notice of the successful appeal to the parties involved, and a written apology to the student and his/her parents/guardians.

Participation and Responsibility

RSF participation at the CWSF

Class of Fair

The maximum number of participants permitted from an RSF at the CWSF is determined by a formula approved by YSF Canada. This formula is based on the size of the school student population in the region (Grade 7-12 or equivalent including public, private and separate schools).

Conseil de développement du loisir scientifique

An annual agreement between YSF Canada and the *Conseil de développement du loisir scientifique* permits regions in Quebec that participate in *Super expo-sciences Bell* to pool their eligible participants and to send a specified number to CWSF.

Regional participation formula

Eligible Student Population	Maximum Number	Minimum & Maximum
Grade 7-12 or equivalent	of Exhibitors	Number of Adults
under 1,000	0	0
1,000	4	2
4,000	5	2
11,000	6	2
18,000	7	2
25,000	8	2
32,000	9	2

Eligible Student Population Grade 7-12 or equivalent	Maximum Number of Exhibitors	Minimum & Maximum Number of Adults
39,000	10	2~3
46,000	11	2~3
53,000	12	2~3
60,000	13	2~3
67,000	14	2~3
74,000	15	2~3
81,000	16	2~3
88,000	17	2~3
95,000	18	2~3
102,000	19	2~3
109,000	20	2~3
116,000	21	3~4
123,000	22	3~4
130,000	23	3~4
137,000	24	3~4
144,000	25	3~5
151,000	26	3~5
158,000	27	3~5
165,000	28	3~5
172,000	29	3~5
179,000	30	4~5
186,000	31	4~5
193,000	32	4~5
200,000	33	4~5

**YSF Canada's
responsibility to the
RSF leading up to the
CWSF**

- Prepare and distribute the CWSF Registration Packages including the CWSF Registration Booklets, the registration forms, awards description, etc.
- Coordinate the CWSF Travel Plan.
- Liaison with Host Committee and pass on any pertinent information to the Regions.
- Respond to concerns, inquires and requests from the Regions. Monitor their progress in meeting deadlines and assist them whenever possible.

Guests

Guests at the CWSF are guests of either the Host Committee or YSF Canada. These individuals are attending the fair for a specific purpose related to the business of the fair. Regional Fairs are not allowed to bring guests to the CWSF, except where medical or cultural reasons require the Region to send an adult in addition to the number allowed by the class of fair. Regions who feel they must bring a guest for one of these reasons must apply to the Host Committee for permission to register an individual as a guest. Approved guests will be required to register as a full participant at the fair and are required to participate in the Travel Plan.

Region's responsibilities leading up to the CWSF

Registration

The Regional Science Fair will arrange for and pay all costs involved in: transportation (fee is determined through the CWSF Travel Plan on an annual basis); accommodation (registration fees are set by each Host Committee to cover meals and accommodation); and the shipping of projects to, from, and at the CWSF.

The RSF will also mail all registration forms and project summaries on behalf of the exhibitors.

These arrangements may be delegated to one or more specific committee members. Definite deadlines are involved, and participation in the fair will depend upon things being done correctly and on time.

Due to tight schedules (e.g., safety checks, awards ceremony), late arrivals and early departures of either exhibitors or chaperons will not be considered.

Registration deadline

Regions must ensure that all forms and fees are sent to the YSF Canada and the Host Committee, as appropriate, by April 20 (exact date may vary).

If a regional fair is to be held close to this date, please telephone and/or fax the names of the air travelers directly to the travel agent as soon as they are available. The money should follow to YSF Canada immediately. The tickets will then be sent to the delegate by courier. All registration materials should be sent to the Host Committee and YSF Canada by courier as instructed in the Registration Booklet.

Delegates and alternates

RSF delegates and the NSFC meet annually at the CWSF to discuss science fair policy and make suggestions in the form of motions or recommendations. In this way, RSFs assist in the establishment of science fair policy in Canada.

Each region may have one voting delegate and one alternate at the annual Delegates Meeting. In addition, each region must have at least one adult as a chaperon/delegate with the students. The alternate delegate can substitute for the voting delegate in cases of illness or absence. A region may not be represented at the Delegates Meeting by the delegate of another region. Regions shall certify their delegate when they send in the registration forms for the CWSF.

Wherever a provincial or territorial science fair organization includes a coordinating officer, that officer may register at a CWSF as a delegate with the right to participate in discussions related to the operation of regional science fairs and the CWSF and to vote on matters arising from such discussions.

Prior to leaving

- Delegates should get together with their exhibitors and projects to determine category and divisions and assist exhibitors in self-nominating for special awards (those students who fail to self-nominate for special awards will not normally be considered).
- Regional delegates must ensure all necessary forms and fees are received by **April 20** (exact date may vary).
- Delegates should examine all projects before shipment to avoid the possibility of disqualification or major reconstruction. If there is doubt about a project, the Ethics, Safety and Animal Care Policy Committee should be consulted. Projects rejected or disqualified will not be displayed at the CWSF.

- Delegates should meet with parents and students to get to know each other and find out what the parents expect. All dates and deadlines should be communicated, and students should be told what to expect at the CWSF.
- Delegates should ensure that students are ready and have projects completed and properly packaged. All luggage, projects or other packages should be properly identified.
- Delegates should meet with their RSF committee to review the Delegates Meeting agenda. Delegates must be prepared to express their region's opinions.
- Student exhibitors often find a conflict in dates between the CWSF and the writing of special qualifying examinations (i.e., International Baccalaureate). Should this situation occur, the Delegate should contact the Host Committee. It is the responsibility of the Host Committee to arrange for these examinations to be written at an accredited local institution.

Any concerns about any particular item should be addressed to YSF Canada or the region's Zone Representative as soon as possible.

At the Canada-Wide Science Fair

Delegates are responsible for the well-being of their exhibitors. By law, a teacher or supervisor's responsibility toward the students in his/her charge is that of a prudent parent. Students are away from home, possibly for the first time, so delegates should be on hand.

Delegates must control the activity and behaviour of their exhibitors and help to uphold all the rules and regulations of the CWSF. If problems arise, CWSF Committee members should be contacted for assistance. Students must be accompanied during tours.

A delegate representing his/her regional fair is to represent the region's opinions and vote at the delegates Meeting. Only the regional delegate and alternate may represent a region and contribute to these discussions (see Delegates Meetings at the CWSF, page 4-24). Anyone may attend these meetings as an observer only (may not contribute to discussions). Only the region's delegate has a vote at the Delegates Meeting.

Delegates and alternates are expected to attend science fair workshops where formal and informal discussions will be held.

Notes:

- Regions are asked to submit to YSF Canada names of persons willing to serve as bilingual judges at the CWSF.
- No region may set up a hospitality room or sell articles at the CWSF, unless they are hosting an upcoming CWSF and wish to promote the event.

End of fair

- Exhibitors must have their exhibits properly packed and labeled, ready for shipping.
- Students must be accompanied home.
- Delegates must report back to their Regional Science Fair committees. Delegates should pass on any new ideas or suggestions picked up regarding science fairs, and ways to improve their fairs.

Exhibitors' responsibilities and participation at the CWSF

- All exhibitors are to be at their projects during the assigned times. Exhibits will be "on display" at specific times during the fair. Appropriate behaviour will ensure that visitors will form positive opinions about the young people.

- Any exhibit infraction shall be pointed out to the delegate responsible for that exhibitor. Changes brought forward shall be the delegate's responsibility.
- Each exhibitor is expected to attend all tours and events that are part of the planned program of the CWSF.
- It will be the exhibitor's responsibility to:
 - ship or bring all light bulbs, switches, motors, fans, or other apparatus or material necessary for the final presentation of the project (other than whatever the Host Committee may be willing to secure, when formally requested in advance to do so).
 - 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).
 - repair or replace anything in the project which fails during the fair (wherever possible, spare parts should be packed with the project).
 - provide all tools, equipment or material necessary for assembly
 - have all project summaries, etc., rendered in their final form by the April 20 registration deadline.
- The exhibitor may not hang any portion of the project, nor affix any posters, graphs, etc. from or to the walls or ceilings of the building in which the fair is housed. It is for this reason that students must provide their own backboards.
- At the fair, the Host Committee will provide:
 - space in which to set up the project (maximum width 1.2 metres; front to back 0.8 metres; height 3.5 metres).
 - a table and one chair beside the project space (extra chairs will be available in the room for projects with partners).
 - a source of 110 Volt AC near the project space (if extension cords are needed, the exhibitor must provide them).
 - storage space for packing cases, etc., during the fair.
 - certain special apparatus (e.g. oxygen, cylinders, other cumbersome objects) only if sufficient advance notice has been given by the exhibitors concerned and if the Host Committee is able to provide them (any such apparatus provided must be paid for by the RSF and/or exhibitor).
- Exhibitors will be asked to participate in a survey.
 - *CWSF Exhibitor Survey*: YSF Canada conducts a survey of student participants near the end of the CWSF to obtain planning feedback on the CWSF and the needs of the participants.
- During the judging process, each exhibitor will be photographed with their exhibit. The photos are kept for YSF Canada records and they may be used for promotional purposes.

Delegates Meetings at the CWSF

Introduction

These meetings are held every May at the site of the CWSF. Each affiliated region has one delegate (with a vote). Each region may also have one alternate (no vote) and as many observers as they wish. Members of the NSFC have voting privileges. The meeting is run by the NSFC, which represents the delegates. Each year the delegates elect one of their members to a three-year term on the NSFC.

Types of meetings

Information meetings. The main purpose of these meetings is to allow the delegates and NSFC to get acquainted, and for the delegates to exchange ideas.

Subcommittee meetings. These are organized by the NSFC Chairperson and may be set up to bring in a report and recommendations. Only delegates or alternates may be members, with a

maximum number of nine, plus one NSFC member. All reports shall be in writing and will be given to the Secretary for inclusion in the minutes.

Workshop meetings. These are organized by the NSFC and are set up to involve as many delegates as possible in a participatory workshop setting. A variety of topics related to science fairs will be discussed.

Business meetings. The Delegates Meetings usually run in two parts, meeting on separate days. It is through the discussions and motions made at these meetings that recommendations regarding policy are made to the Program Committee, through the NSFC. The remainder of this section deals with the procedures used at this meeting. For items not outlined here, Roberts Rules of Order will apply.

The order of business

Roll call

- All delegates are to check in with the recording secretary at the beginning of each meeting.
- Regional delegates and alternates must sit together. All voting delegates must have their delegate identification on at the time of registration and for each vote taken.

Approval of agenda

- As presented by the NSFC, items of business not covered may be added at this time.

Business of agenda

- Business outlined in that agenda then takes place.

Election of Vice-Chairperson

- The election of the new Vice-Chairperson will take place during the second delegates' meeting at a suitable point in the agenda determined by the Chairperson.

Role of YSF Canada and the NSFC

Agenda shall be available upon registration at the CWSF.

All recommendations for changes in rules and policies of the science fair movement will be considered by the Program Committee Chairperson through the NSFC.

Delegate voting

The principle

Voting is based on the principle of one vote for each affiliated RSF that has at least one student exhibitor present at the CWSF.

The process

Eligibility

- Only RSF first delegates registered on the official roll call of the Delegates Meeting may vote.

Secret ballot

- Secret ballots are used to elect the new NSFC Vice-Chairperson and the Zone Representatives. Candidate's names are written on a special ballot.
- All ballots are destroyed by the Chairperson after each vote.

Scrutineers

- Two scrutineers will be appointed by the Chairperson from among the non-voting delegates to count the ballots for the election of Vice-Chairperson, and by the Past Chairperson for Zone Representatives.

Quorum

- A Quorum shall be at least two-thirds of the eligible delegates present at the Delegates Meeting.

Majority

- A simple majority is necessary to declare a winner.

New Vote

- If a clear winner is not declared, the candidate with the lowest number of votes is dropped and a new vote is taken until such time as a winner can be declared.

Rules of Order

Roberts Rule of Order will apply with the following explanations and emphasis:

- Any Host Committee member may speak on their operations at the CWSF.
- Subcommittees may be set up to bring in a report and recommendations. Only delegates or alternates may be members, with a maximum number of nine, plus one NSFC member. All reports shall be in writing and will be given to the Secretary for inclusion in the minutes.
- A quorum shall consist of two-thirds of the delegates.
- Each region is allowed one voting delegate and one alternate, each of whom may speak to the meeting, but only one of whom may vote. Observers may not speak to the meeting.
- Regional fairs not in attendance may not be represented by a delegate from another regional fair.
- The ruling of the Chairperson on points of order or privilege can be challenged from the floor. The challenger and the Chairperson can each speak to the issue and a vote is taken immediately thereafter. A two-thirds majority is needed to overrule the Chair.
- Voting delegates only may move and second motions.
- All motions are to be handed to the Secretary in writing before being accepted for discussion. Motion sheets will be provided.
- The mover may open the discussion, and has the option of making the closing remarks before the question is called.
- Each delegate may speak only once to a motion unless he or she has additional information or requires clarification or more information.
- Any delegates recognized by the Chairperson must be allowed to speak (before the question is called).
- Each region represented has one vote. All votes shall be a stand-up vote so that the Chairperson may distinguish the voting delegates by their identification.
- Any amendment to a motion must be voted on prior to dealing with the main motion.
- Tabled motions may be left until the next annual meeting provided the mover and the seconder agree.
- No vote is required for recommendations or where consensus is apparent.
- The *Policy, Procedures and Guidelines Manual for the National Science Fair Program* may be amended by a motion that must pass with a majority of the voting delegates present. Changes which affect the policy of the YSF Canada must be approved by the YSF Canada Board of Directors upon the recommendation of the NSFC.
- Should the NSFC Executive decide that an amendment passed by the delegates should not be presented to the YSF Canada Board of Directors, they can delay presenting the amendment provided they give an explanation at the next Delegates Meeting.

Nomination form - Vice-Chairperson

A nomination form for the position of Vice-Chairperson may be found as Appendix F. Only first delegates (not alternates) may nominate or second candidates for the position of Vice-Chairperson. This form must be completed in duplicate (one to be retained by candidate).

Nomination form - Zone Representative

A nomination form for the position of Zone Representative may be found as Appendix G.

Motion sheet - Delegates Meeting

A motion sheet for use at the Delegates Meeting is attached as Appendix H.

Awards

General

The awards for the CWSF are the responsibility of YSF Canada.

The Canada-Wide Science Fair Awards

The Canada-Wide Science Fair Awards recognize the scientific and technological achievements of the students participating in the Canada-Wide Science Fair. YSF Canada determines the criteria for eligibility, sets the judging standards, recruits the sponsors of prizes and organizes the presentation of awards. Some \$200,000 worth of awards are presented at the awards ceremony. The CWSF awards are structured as follows:

Division Awards

Gold, silver and bronze medals, with associated cash prizes, and honourable mention certificates, are provided for the best junior, intermediate and senior projects in each of the six divisions. The maximum number of medal and honourable mention winners that are selected in each division is: 6 gold plus \$400 each; 9 silver plus \$300 each; 12 bronze plus \$200 each; and 30 honourable mention certificates. A lesser number is awarded if the available projects do not merit granting the awards.

Petro-Canada Peer Innovation Awards

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.

Special Awards

Special Awards include trips to participate in science-related activities such as the Weizmann Institute in Israel; cash prizes ranging between \$250 to \$1000 each; scholarships of \$1000 or more, and other prizes. The criteria for these awards are determined by the sponsors. Students are allowed to self-nominate for 7 awards.

Grand Awards

Grand Awards consist of the Best Junior, Intermediate, Senior Projects; and the Best Overall Project in the Fair.

Judging

General

The judging standards for the Canada-Wide Science Fair are the responsibility of YSF Canada. YSF Canada produces a CWSF Judging Manual each year. This manual is used as a guide and it is distributed to all judges who participate in the CWSF.

CWSF Judging Committee

Normally there is a Chief Judge, a Deputy Chief Judge and a Chairperson assigned for each of the six divisions. The Chief Judge and the Deputy Chief Judge do not judge. These two people, in conjunction with the division chairpersons, organize the divisional judging. They ensure that there is suitable subjective interaction among the judge in the ranking of winners in each division and category.

Divisional Judges

The Chief Judge is responsible for finding and obtaining the commitment of qualified judges. All judges must have appropriate academic qualifications and/or appropriate practical experience. Judges may include university and community college faculty, industrial scientists, engineers, technologists and representatives of government laboratories, research centres and agencies, and medical researchers.

More than 200 judges review some 300 exhibits in six divisions. Judging is by teams, which are normally three to five people, who individually judge eight to ten exhibits.

Special Awards Judges

The organizations that sponsor Special Awards are encouraged to provide their own judges. In cooperation with YSF Canada, the Chief Judge is responsible for coordinating the Special Awards Judges and arranges for supplementary Special Awards Judges, as required. Special Awards Judges have access to the relative ranking results of Divisional Judges as required.

Grand Awards Judging Committee

In co-operation with the Chief Judge, YSF Canada is responsible for co-ordinating the Grand Awards judging. The Grand Awards Judging Committee is a committee of YSF Canada. There are approximately eight members and they are responsible for selecting the winners of the Grand Awards. The judges use the relative rankings of candidates as selected by the Divisional Awards Judges as a basis for selecting the winning projects.

Judging Appeal Committee

The members of this committee include the National Chief Judge, Deputy National Chief Judge, National Science Fair Committee Chairperson, Chief Judge and the Executive Director. This committee is responsible for reviewing and resolving any disputes at the CWSF.

Petro Canada Peer Innovation Awards

These awards are not part of the Special Awards program, so students are not required to nominate themselves; all projects registered on-time for the CWSF are eligible. CWSF student participants select the recipients of these awards by secret ballot. Under the direction of the NSFC, ballots are prepared in advance from the participant database to provide one ballot for each grade category within each geographic zone of the YSF. With six zones and three categories, this requires 18 different ballots, in both English and French. Each ballot header identifies the zone and category it is for, and lists the eligible projects, their floor location numbers, student name(s), and project titles. The ballot also provides three blocks for the student (or 2 students together) from each project to write in up to three project floor location numbers. The ballots from different zones are printed on different colours of paper to facilitate sorting. In order to help the students locate the projects from their geographic zone, coloured stickers that match the ballot colours for the zones are placed on the table identification tags for each project.

Students are encouraged to visit eligible projects during set-up and other free time in the display hall. A host committee may wish to designate some time in the schedule for Petro-Canada award visitation, but the available time in the first few days seems adequate for the purpose. The selection process is not intended to be rigorous, but provides a focus for participant interaction. In some zones and categories, it may not be possible for students to visit all eligible projects.

Students submit the ballots to their delegate, who ensures that the appropriate number and type are completed for his/her region. The delegate submits the region's ballots to the zone representative by the time and date designated in the CWSF schedule. The NSFC is responsible for counting the ballots and submitting the results to the YSF Canada office for preparation of the awards.

General judging procedures

Although the routine will vary slightly from year to year, the method by which judging occurs at the CWSF is presented here. The judging form used at the CWSF is included as Appendix M.

The process

Screening

The Chief Judge will examine the pre-submitted project summary. He/she will ensure that the project has met the rules and regulations. The Chief Judge is also responsible for matching the judges to the exhibits (each judge has eight to ten exhibits assigned to them). If the Chief Judge feels an error has been made regarding division placement, he/she may recommend a specific division placement for the exhibit, but the final decision regarding the division placement rests with the student exhibitor and their regional delegate.

Safety checks

The Safety and Regulations Committee shall examine all projects to ensure that they meet all the rules and regulations (e.g., exhibit size, safety and animal care). If a project does not pass the inspection, it may be disqualified. In order to facilitate a smooth and fair inspection process, the following procedures shall be in place:

- A brief description of the safety inspection process shall be provided to all participants and delegates in the registration booklet and on arrival in the display hall, including written notice that the final authority in issues of safety is the NSFC chair.
- The NSFC is to be involved in the safety inspection process as members of the inspection team.
- Knowledgeable resources, and/or a training workshop, shall be available to inspectors to assist with the interpretation of key safety issues such as electrical safety, fire safety, animal research, and what is acceptable for display (particularly food and plant material).
- A visual identification system shall be implemented that allows inspectors to identify easily projects that: clearly meet all criteria; are suspected of violations; and those in clear violation.
- Each project shall be assigned to a specific inspector/team of inspectors. The assignment may be based on familiarity with certain divisions or other criteria, but must remain consistent from first inspection to certification. This ensures that one inspector does not approve something another inspector previously identified as deficient.

Briefing the judges

The Chief Judge will provide his/her briefing instructions to the judges before each judging session. The instructions will include the judging philosophy, judging procedures, exhibit layout, assignment of projects and review of the project summaries.

Prejudging

When judging “scientific thought”, a project “level” will be selected by a judge. The level of the project refers to aspects of the project such as:

- the level of difficulty; the depth of the study; the complexity of the project; the degree of competence or the thoroughness of analysis.
- the levels proceed from lowest (1) to highest (4), increasing in the above mentioned aspects at each level.

Each project’s division, type, and level (1,2,3,4) will be decided before judging begins; however, on-site judges have the final say in selecting type and level of projects when judging scientific thought. Before the CWSF begins, each judge should have read and evaluated the Project Summaries assigned to them according to the criteria on the judging forms. See page **Error! Bookmark not defined.** for sample judging forms.

Student counsellors

Judging can be a stressful experience for CWSF participants. During judging, the host committee provides a number of readily-identifiable student counsellors on the exhibit floor who are available to respond to exhibitor’s needs (e.g., to answer questions, assist with project equipment malfunctions, and deal with exhibitor anxiety). The counsellors should operate outside the host committee’s judging organization.

Division Awards judging - Day 1

Each judging team will evaluate a specific group of projects in the same division and category on an individual basis. Judging is a two-step process. First, the judges will view the exhibit without students being present. This way, questions can be formulated. In the second part of judging, students are present at their exhibit. The interviews are the most important part of the process and 30 minutes will be allocated for each one. An exhibitor should plan to describe their project in about 10-15 minutes and be prepared for the judges to ask questions. Each exhibit will be evaluated five times.

Because judging is performed on a relative basis, judges communicate with other members of their judging team to determine the final ranking. The judges then submit the scores to the Chief Judge or Division Chairperson. The ranking in each division and category will then be determined on the basis of these scores and subjective interaction among the judges.

Special Awards judging - Day 2

Unlike division awards, special awards are based strictly on criteria established by the sponsor. Students must self-nominate for these awards when registering for the CWSF. Special Awards judges (usually appointed by the sponsor) are given a list of eligible projects, which is generated based on scientific merit and self-nomination. Judges will spend approximately 10 minutes with the project. An exhibitor should present their project in about 5 minutes (keeping the criteria in mind) and be prepared for the judges to ask questions. After interviewing the exhibitors, Special Awards judges will confer and will submit a rank-ordered list of the top five projects based on the Special Awards criteria. Final decisions are made by the Judging Committee and/or the sponsoring organizations.

Grand Awards judging - Day 2

Grand Awards Judging will occur in parallel with Special Awards Judging. The Grand Awards - the Best of Fair, Best Senior, Best Intermediate and Best Junior are selected based on a consensus of the Grand Awards Judging Committee. Eligibility for the Grand Awards will be determined by a number of factors including; scientific merit, age, criteria as specified and medal standing as determined by the Divisional Award judging.

Table: Medals awarded in divisions

Medals	Divisions					
	Biotechnology	Computing & Mathematical Science	Earth & Environmental Science	Engineering	Life Science	Physical Science
Categories						
Junior 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 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 Senior (Grades 11, 12 & OAC, 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

The CWSF Travel Plan

Description

The CWSF Travel Plan provides a central administration for the logistics associated with the return transportation of participants and their projects to the CWSF host city.

Travel arrangements are made by YSF Canada. The best possible group rates through a travel agent are obtained.

Goals

- To equalize travel costs for participants of the CWSF.
- To permit YSF Canada to move the CWSF to different locations in Canada.
- To coordinate the arrival and departure of all participants with the Host Committee plans.

Policy

- Participation is mandatory for all affiliated RSFs, including the Host Committee's region.
- Participants in the plan include exhibitors, delegates and alternates. All others will pay the actual costs if using flights organized by YSF Canada.

Operations

After consultation with the air carrier and travel agent, and considering recent participation patterns, the distribution of participants across Canada and the location of the CWSF, a tentative travel fee is announced by YSF Canada at the time of affiliation in the fall.

The fee will be payable to YSF Canada and comprises two payments:

- All RSFs will be asked to make a non-refundable deposit based on their expected number of participants to the Plan. The deadline will be December 15 (exact date may vary from year to year).
- Balance due must be paid no later than April 20 (exact date may vary from year to year).

In February/March, regions will receive a tentative flight schedule (usually appears in the CWSF Registration Booklet). Regions should be sure to examine it carefully; if any changes are required, this is the time to notify YSF Canada. **NO CHANGES WILL BE MADE AFTER THE TICKETS ARE PROCESSED.**

Any shortfall in the travel fund will be charged to each RSF on a per participant basis.

Any surplus funds will be credited to the regions on a per participant basis.

Surface Travel

Regions designated for surface travel

In September, YSF Canada designates which affiliated RSFs are to use surface travel. A five-hour driving radius of the CWSF site is the guideline used to determine surface travel. All regions using surface travel pay the same travel fee as those regions traveling by air. Following the CWSF, regions involved in surface travel submit a claim form to YSF Canada for their surface travel costs to and from the CWSF site. The deadline for submission of the claims is June 30th each year.

A region's total claim cannot exceed that region's contribution to the Travel Plan.

Claims

Regions designated for surface travel within a five hour driving distance are permitted to make the following claims:

- use your own vehicle - total km x rate as per Appendix A
- rental of a van/bus - attach paid invoice and gas receipts
- bus/train - number of people x fare (attach receipts)

Regions may not claim the following:

- meals and/or overnight accommodations.

Regions electing to use surface travel

Regions that are more than five hours travel distance from the CWSF site and who desire, for their own convenience, to use surface travel, are permitted to do so, providing YSF is notified upon affiliation. Travel claim forms must be submitted to YSF Canada by June 30 each year.

A region's total cannot exceed the actual flying cost for the region to the CWSF.

Claims

The following claims are permitted for surface travel beyond five hours driving:

- use your own vehicle - total km x rate as per Appendix A
- rental of a van/bus - attach paid invoice and gas receipts
- bus/train - number of people x fare (attach receipts)

Regions may not claim the following:

- meals and/or overnight accommodations

Regions requiring overnight accommodations

Due to poor flight connections, it may be necessary for participants to stay overnight during their travel.

Regions will be responsible for making their own reservations, paying the bill and submitting receipts to YSF Canada for reimbursement (see Reimbursements, page 4-33).

Exhibitors must be accommodated in separate rooms according to gender. Delegates and alternates are not permitted to share rooms with exhibitors unless they are the parents of the exhibitor.

Cancellation policy/Changes to airline tickets

The travel agent is not authorized to make any changes to the travel arrangements without YSF Canada's approval. Therefore, if you have any problems with your schedule, please contact YSF Canada immediately.

- No changes will be made after the tickets are processed.
- If a region chooses to drive without notifying YSF Canada in a timely fashion and airline tickets have been purchased and forfeited, the RSF cannot expect to claim compensation.

Science project shipping

Science projects to be shipped by air must be properly packaged to prevent damage, and arrangements must be made to ship by air cargo or by courier to the CWSF site. RSFs are responsible for shipping costs if the projects are not part of their regular baggage. Details on how shipping is to be done and the arrangements made between YSF Canada and the air carrier are provided in the *Registration Booklet*.

Each air carrier determines its own baggage regulations and may charge for extra or oversize pieces of luggage. These charges are not covered under the YSF Central Travel Plan.

Reimbursements

- Regions involved in surface travel will be reimbursed; see above for details.
- Due to poor flight connections, it may be necessary for participants to stay overnight during their travel. YSF Canada will reimburse regions for food and accommodation costs.
- Surface travel costs to an airport of departure will be reimbursed.

5 – HOSTING A CANADA-WIDE SCIENCE FAIR

YSF Canada operations policy

Charitable organization mandate

The CWSF Host Committee operates as an extension of YSF Canada's registration as a charitable organization. It is, therefore, an agent of YSF Canada empowered to carry out the staging of the CWSF under the direction and direct control of YSF Canada.

Qualified Host Committee

YSF Canada carries out the staging of the CWSF through the selection of a qualified CWSF Host Committee and the signing of a CWSF Host Agreement.

Signing of a CWSF Host Agreement

Once approved as the successful bidder for a CWSF, the Host Committee Chairperson (or Co-Chairperson) and Treasurer sign a CWSF Host Agreement with their YSF Canada counterparts - the President and Treasurer.

It is the intent of YSF Canada to sign the Agreement no later than two years in advance of the CWSF. Ideally, the Agreement is signed at the CWSF in May or at the YSF Canada Annual General Meeting. These venues are appropriate for public relations purposes.

Host Agreement – CWSF

General

The authority governing the staging of a CWSF is the CWSF Host Agreement between YSF Canada and the Host Committee.

A sample copy of the full text of a recent Agreement is provided as Appendix B to this manual.

Cancellation of the CWSF

All terms and conditions of the CWSF Host Agreement with YSF Canada shall be implemented by the Host Committee on schedule. Failure to take remedial action when advised to do so by the CWSF Bid Selection Committee Chairperson may lead YSF Canada to cancel the CWSF.

CWSF name and YSF Canada logogram

The CWSF acronym and the YSF Canada logogram are trademarks of YSF Canada and, under the terms of the Agreement, the Host Committee shall have the right and obligation to use these trademarks in conjunction with all authorized activities of the fair.

YSF Canada shall provide the Host Committee with the appropriate graphics and a style guide for usage.

Program

Program outline

A typical program outline for the CWSF is described below. The program should be developed in consultation with YSF Canada.

	Morning	Afternoon	Evening
Friday			Arrivals (YSF Canada Staff, NSFC)
Saturday	NSFC meeting Part I	Arrivals (participants)	Arrivals (cont'd)
Sunday	Arrivals (cont'd) Project set-up	Project set-up complete Project safety checks	Judges' reception, registration & orientation Orientation mixer
Monday	Opening Ceremony	City & Site Tours	Opening Banquet
Tuesday	Judging Delegates meeting	Judging Zone meetings	Special Event
Wednesday	Judging Delegate workshops	Judging	Judge's banquet Special Event
Thursday	Tours	Tours Delegates Meeting Part II	Evening for presentations by future Host Committees
Friday	VIP viewing Bid review School tours of exhibits	Awards Ceremony VIP luncheon	Awards banquet and dance
Saturday	Public tours of exhibits NSFC meeting Part II	Project take-down	Departures
Sunday	Departures		

Arrivals and Judging

In order to provide a reasonable time for set-up and adjustment to time changes, CWSF participants should arrive at the fair site at least 36 hours before judging begins.

Finances

Host Committee financial responsibilities

General

The CWSF is a large and complex undertaking. It requires commitment, organization and, above all, superb financial management. To be successful, a Host Committee must recognize from the outset that the CWSF is not an end in itself. It is a national asset, a means to an end, and a critical component of YSF Canada's National Science programs and national sponsors. YSF Canada must honour its commitments to produce measurable results.

Incorporation

It is good business practice for a CWSF Host Committee to provincially incorporate. This limits financial liability to the organization and protects the individuals serving on the Host Committee—providing they conduct the affairs of the organization according to good business practice, i.e., the directors (Host Committee officials named in incorporation) meet their fiduciary responsibilities to the organization, are not guilty of negligence and do not break the law.

Budget

A realistic budget is essential and is a major element in winning the CWSF bid. It must be revised regularly to remain accurate in the years leading to the CWSF.

Fund raising

The Host Committee solicits donations from local, regional and provincial government and business organizations.

Sponsorship of opening and closing banquets and donations in-kind greatly assist in helping to reduce operational costs. The use of a university campus as the site of the CWSF is recommended where feasible.

CWSF operating Expenses

- Host Committee administration
- Communications services
- Ground transportation
- Tours and events
- Local public relations
- Translation
- Office staff, space, equipment, supplies
- YSF Canada office space & equipment
- Opening and closing banquets
- Chief Judge and judges
- Publications and newsletter
- Souvenirs

YSF Canada financial responsibilities

National administrative continuity

YSF Canada provides the expertise to manage the Foundation's day-to-day business affairs, the strategic planning process, its national youth programs, such as the National Science Fair Program and the National Science Awards Program, the recruitment of awards sponsors and the financing of the supporting committees such as the National Science Fair Committee.

Comprehensive Liability insurance

YSF Canada negotiates an extension of its master policy with the underwriter to cover all venues and activities at the CWSF at no charge to the Host Committee.

Site visit

YSF Canada pays for its officials to visit the CWSF site to review preparations with the Host Committee. The team consists of the YSF Canada Executive Director and up to two members from the CWSF Bid Selection Committee.

Presenter's luncheon

The Host Committee will be asked to arrange a luncheon on behalf of YSF Canada for award presenters and VIPs. YSF Canada will pay any bills as negotiated.

Week of the CWSF - Financial Summary

The registration and travel costs covered by YSF Canada and the Host Committee are summarized as follows:

Attending the CWSF	Travel	Registration
YSF Canada Staff	YSF Canada	YSF Canada
YSF Canada Executive Director	YSF Canada	YSF Canada
YSF Canada Board of Directors	YSF Canada	YSF Canada
NSFC - Zone Representative (6)	YSF Canada	YSF Canada
NSFC - Executive Committee (3)	YSF Canada	YSF Canada
Future CWSF Chairperson	YSF Canada	YSF Canada
Future CWSF Chief Judge	YSF Canada	YSF Canada
Grand Awards Judging Panel	YSF Canada	YSF Canada
Past Host Committee Chair person	YSF Canada	YSF Canada
Other future Host Committee members	Other future Host Committee members	Other future Host Committee members
International Guests	International Guests	International Guests

Special Requirements

International Baccalaureate and other examinations

Student exhibitors at the CWSF often find a conflict in dates between the CWSF and the writing of special qualifying examinations for entry to international educational institutions. It is the responsibility of the Host Committee to arrange for these examinations to be written at an accredited local institution.

Commercial photography

YSF Canada reserves the right to all commercial photography at the CWSF. Bids by local photographers will be considered by YSF Canada. Each exhibitor will be photographed with his/her exhibit. This session will occur during the Division and Special Awards judging.

The Host Committee Members

General

A successful CWSF will depend upon the expertise of the Host Committee and its ability to work as a team. The CWSF is a highly complex business project that must be completed on schedule and within budget.

All members of the Host Committee should agree to participate actively in planning and carrying out the fair before accepting appointment.

At the top, the CWSF Chairperson is the team leader and this person must be prepared to delegate. A strong Co-chairperson is essential to carry the workload and provide backup should the Chairperson be unable to carry out his/her duties.

Meetings should be held regularly after a CWSF bid has been approved and their frequency will increase as the fair date approaches. Sharing the minutes with YSF Canada and building a rapport between the Chairpersons of the committees and YSF Canada staff will help everyone accomplish their tasks efficiently.

Office

The CWSF Host Committee should have a regular place to meet and a place to keep records. As the fair approaches this office should become more formal, with administrative staff and possibly the Chairperson or Co-chairperson present.

Chairperson

Major responsibilities include:

- To liaise with the Past Host Chairperson for operational advice and experience.
- To liaise with the Executive Director on contractual (CWSF Host Agreement) matters and strategic plans affecting the CWSF.
- To provide regular progress reports to the Executive Director and the NSFC.
- To provide a written report to the NSFC prior to the CWSF.
- To provide written and verbal reports at the CWSF Delegates Meeting.
- To provide additional written reports, upon request, to YSF Canada, the NSFC or the Program Committee.

Chief Judge

Major responsibilities include:

- To serve as Deputy Chief Judge at the CWSF preceding his/her fair.
- To recruit a team chairperson for each of the six divisions.
- To recruit the necessary judges and/or help the team chairpersons recruit their judges.
- To conduct the briefing sessions for the judges.
- To oversee the judging of the six CWSF divisions, and assist with the Special Awards judging;
- To collect eight Project Summaries for each exhibit and ensure proper distribution:
 - One complete set to YSF Canada upon their arrival at the CWSF.
 - Retain one complete set for him/herself and one for the Host Committee.
 - Distribute one to each team chairperson prior to judging.
- To collect and verify the judging results.
- To help YSF Canada develop the Judging Manual and to distribute it to his/her judges.

Director of Bilingual Services

Major responsibilities include:

- To secure appropriate translators where needed.
- To oversee the printing of bilingual signs and name tags.
- To ensure and oversee other appropriate bilingual printing.
- To ensure a bilingual orientation.
- To secure a bilingual master of ceremonies for all major events.

Note: In addition to French language services, the Host committee will make every effort to provide an Inuktitut interpreter during judging.

Committee Chairpersons

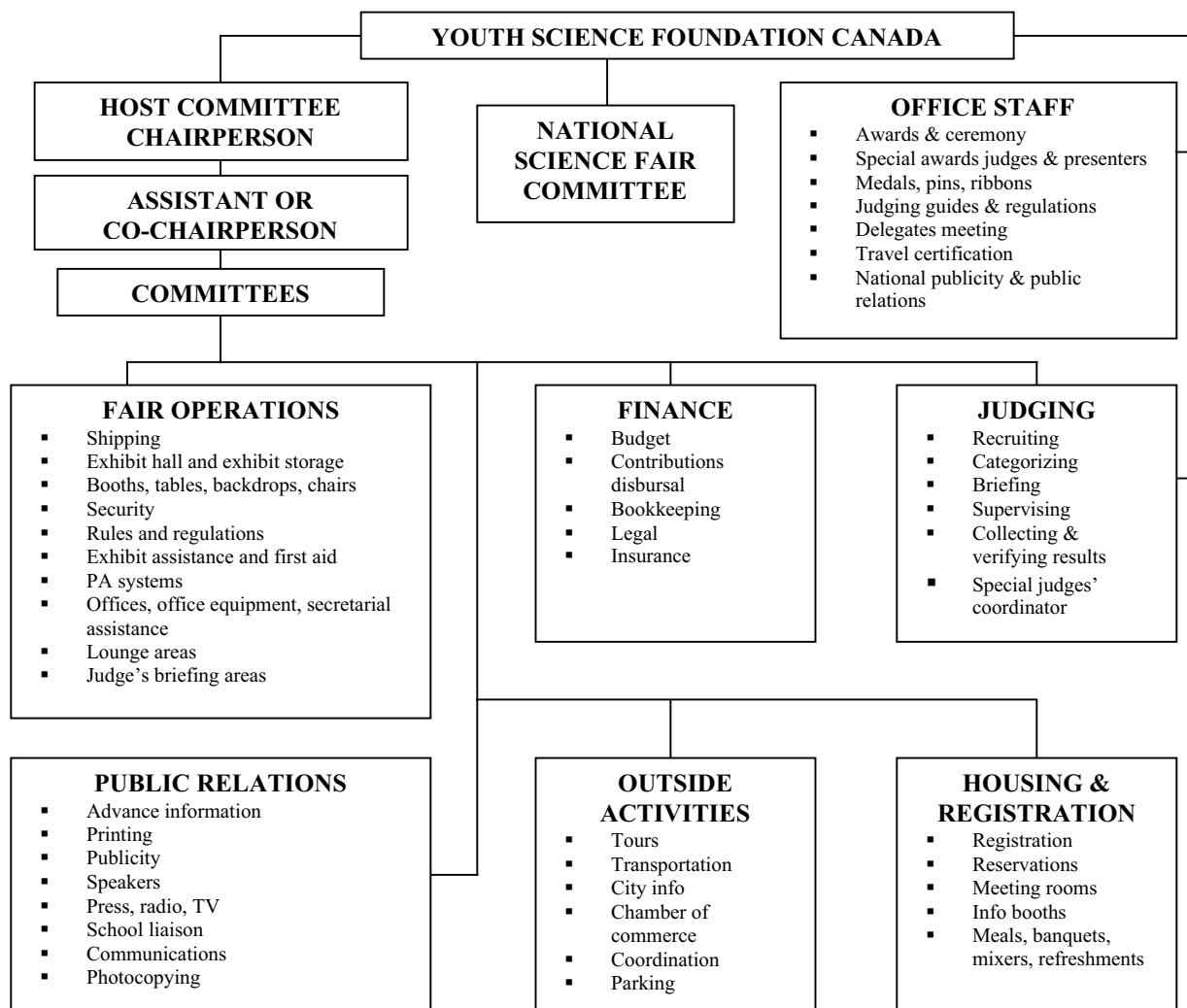
The following committees should be organized, chairpersons appointed and tasks allocated:

- Finances and Fund Raising

- Facilities
- Tours and Transportation
- Safety and Rules
- Translation/Bilingual Services
- Administration & Communications
- Souvenirs
- Registration and Housing
- Program
- Publicity and Public Relations
- School Tours
- Banquets and Hospitality
- Special Activities and Events
- Publications and Newsletter

Areas of responsibility

A suggested summary of activities by area of responsibility is outlined below:



Operations

Host Committee responsibilities

General

- producing letterhead to be used for fundraising, publicity, etc.
- producing appropriate identification badges for exhibitors, delegates, etc. (ribbons will be supplied by the YSF)
- ensuring that verbal and written communications are provided in both official languages. If necessary, contact the Secretary of State to arrange for financial assistance for simultaneous translation for speeches, etc.
- arranging a “get-together” place (a lounge) from the first day of the CWSF in order to encourage and facilitate communication among the delegates
- staffing a Rules & Regulations table during exhibit set-up, project supervision, safety and dimension checks and enforcement of local safety regulations
- provision of a central information booth staff by a bilingual attendant (24 hours a day, if possible)
- some form of communication system (e.g. 2-way radio, pager) between all fair locations including mobile vehicles. A radio-equipped car should accompany bus trips to act as an emergency vehicle, if possible
- provision of adequately equipped rooms for both the YSF and the NSFC
- provision of typing, duplicating facilities and supplies to all delegates, but at a cost
- a meeting of all delegates and observers on the first day to provide these persons with an orientation to the complete program. This meeting would then be followed by a similar discussion with the exhibitors. This would constitute an official opening.
- provision of readily identifiable badges or armbands for all officers of the fair, including attendants
- provision of a detailed list of problems or recommendations to the YSF to assist future CWSFs
- the design and printing of an official program
- preparation of passes for removing materials from the exhibit area (if necessary). Passes should be designed so they are easily recognized by security, and not easy to duplicate
- making a reasonable effort to provide Internet access to student projects, where the successful demonstration of the project requires it
- providing email access for participants and delegates

Floor plan

- producing a floor plan of exhibit area showing location of exhibitors

Exhibits

- arranging for storage of exhibits. Many exhibits arrive as early as two weeks before the CWSF and must be stored until the beginning of the fair
- On the Saturday or Sunday before the beginning of the fair, exhibits are brought from the warehouse to the exhibit area and taken directly to their assigned space. In the event that the warehouse trucking staff cannot handle the exhibits within the exhibit area, other personnel and equipment must be provided.
- helping the student exhibitors as follows:
- tools for uncrating: hammers, screwdrivers, etc.
- tools and materials for setting up exhibits: hammers, screwdrivers, drills, scotch tape, friction tape, glue, Allen wrenches, stapling machines, turpentine to remove paint, nails, screws, cord, etc.

Storage

- approximately 125 square metres of space for crates and boxes

- a crew to move crates and boxes to storage area

Exhibit area

- 2,300 square metres for exhibits

Judge's Briefing area

- 200 chairs
- podium and microphone near exhibit area

YSF Canada office

- a telephone, a fax machine and a photocopier with paper
- one correcting typewriter
- three IBM compatible computers and one laser printer
- an office large enough to accommodate five people
- proper desks and chairs
- one large table
- key to office

YSF Canada office

- table and chairs to accommodate at least 16 people
- 1 IBM compatible computer and printer
- photocopying machine and paper
- key to office

Awards

- set aside a room to be made available to those presenting awards and the press for photos and briefing after the awards ceremony (briefing area for approximately 30 people)

Security

- there should be security at doors at all times during public viewing
- ten extra people, properly identified with armbands or something equally obvious, should be present during public viewing
- passes must be required for removing materials from the exhibit area (provided on approval of Host Committee)
- security should be on patrol during judging—delegates are not permitted in the exhibit area at this time
- security should be on patrol at night and other non-viewing times
- space should be provided to lock up valuable equipment overnight
- judges' area is off limits. Only YSF Canada staff and Judging Committee members are permitted to enter. This may require security, depending on access to these areas.

First-aid

- nurse or suitably trained person on duty at exhibit area during activities (e.g. public viewing, judging, etc.)
- doctor on call

PA System

- a microphone is usually located at the information and assistance booth and in the dining area

Exhibit layout maps

- posted at entrance and other appropriate locations

Fire and Police permits

- every city has certain regulations which must be followed and permits which must be obtained.

Guide signs

- signs should be placed at obvious locations throughout the site indicating cafeteria, banquet halls, meeting rooms, tour locations, etc.

Judge's discussion area

- the discussion area should be as close as possible to the exhibit area. It should be private so that judges can talk without being seen or overheard by students or other participants.
- between the hours of 9:00 a.m. and 10:00 p.m. on the day of judging, the following will be provided:
 - desk for the Judge-in-Chief and additional desks, tables and chairs
 - refreshments and donuts

Exhibitors lounge

- on or near the exhibit area

Delegates' lounge

- near the exhibitors' lounge

Return Shipping Assistance

- representatives of trucking and air freight concerns should be present to help plan the return of exhibits
- an exhibitor assistance team should be available to provide necessary tools and materials including handling machine.

Electrical equipment

- if any available equipment was borrowed, the equipment's status should be checked by a qualified electrician. After any necessary repairs are made, the equipment should be forwarded to the next year's fair, or returned as requested by the lender of the equipment.

Registration

- delegates and exhibitors will register on arrival at the Registration Booth at the fair site.
- tables and chairs will be required for those staffing the registration desk. There should be at least four people at the desk
- registration packages should be made up prior to registration day. They should be in a large envelope with a copy of the Pre-Registration Form attached to the outside. This lists all people registered from a particular fair and will permit the registration clerk to check on whether there have been any changes. Only the official delegate from each fair will register and collect all registration packages for the other members of the party. If there are any changes in the number of people in each party, the delegate will go to a Service Desk immediately adjacent to the registration booth to have new name tags typed, etc. Registration packages for persons who do not come when the fair group registers, will be put in a "No Show" box so that if they arrive after, the package will be available.

Registration package

The Registration Package will include:

- Name badge and ribbon
- Room key
- CWSF program and list of exhibitors
- Welcome letter
- Map of the city
- Banquet tickets (if used)
- Information on local cultural, historic and scientific attractions
- Map of the fair site
- Tour information
- Additional materials from the Host Committee

Information booth

- there should be an Information Booth next to, or as part of, the Registration Booth to provide information on non-registration matters, since many people will first come to the area where the Registration Booths are located.
- the persons at the information booth should be able to provide information such as:
 - exhibit numbers and locations (they should have an exhibit layout map)
 - list of where people are staying, obtained from housing
 - tour information and where to sign up for tours
 - schedule and location of events
 - room numbers for YSF office and Host Committee office
 - location of facilities
- a bulletin board should be available for messages, tour changes, etc. Both the information booth and bulletin board may be moved to another location when registration is complete
 - either the exhibit area, or dining hall, or both

Housing

- approximately 300 rooms will be required for 600+people
- all accommodation should be within easy walking distance of the exhibit area; if not, free shuttle buses should be provided
- rooms should be pre-assigned by the host committee to avoid congestion and confusion on arrival at the site
- accommodations should be delegate-centred (exhibitors and their delegate should be housed under the same roof and on the same floor if possible)

Meals

- the cost of all meals at the CWSF shall be included in the registration fee
- meal tickets may be distributed to participants or the name badges may be used for identification purposes
- special diets for medical and/or religious reasons must be catered to

Auditorium for opening ceremonies

- approximately 600 seats, unless large numbers of local people are invited, in which case more will be required
- podium and microphone
- chairs and platform for guests
- printed program (optional)
- ceremonies to be determined, can vary from a welcome by the mayor to a speech by a nationally-known scientist

Awards ceremony

- seating for at least 600 people
- front two rows (approximately 50 seats) reserved for award presenters
- stage is set-up in cooperation with YSF Canada
- lighting and space for photographer

Awards banquet

- tables and chairs for approximately 600 people
- if tickets are provided, tickets should be collected
- head table seating to be determined by YSF Canada and Host Committee
- podium with microphone at centre of head table
- printed program (optional)

Workshop rooms

- eight to ten rooms to accommodate 25-50 people each
- chairs
- table and chairs at front of room
- blackboard and chalk

Delegates meeting room

- seats for 150 people
- table with 5 chairs on a platform
- microphone
- screen, overhead projector

Adult mixer

- at the discretion of the Host Committee

Judges mixer

- at the discretion of the Host Committee

Student mixer

- at the discretion of the Host Committee

Church Service

- arrangements should be made for church attendance on Sunday morning for those who wish to go

Tours – General

- plan and provide transportation for a series of tours to places of scientific, cultural and historical interest. The CWSF should be an educational experience as well as a competition, and one of the biggest opportunities for the participants to learn is through local tours to places of interest. The following are typical recommended tours:
 - university, industry, government research laboratories
 - hospitals, particularly if involved in medical research
 - manufacturing plants of exceptional interest
 - areas of natural history interest
 - zoos; botanical gardens
 - art museums; places of historical interest
- in the past, we have had organizations comment that if they had only realized the finalists were so bright, they would have gone to much more effort. Every attempt should be made to make tours interesting to the kind of participants that we have at the CWSF.
- some tours may have to be limited to a single busload or considerably less because of lack of space or guides at the other end. In such cases pre-registration becomes necessary. Other tours (such as the zoo) may permit several busloads at one time.

Tour dispatchers

- tour dispatchers are responsible for leading buses and deciding when buses should leave. Dispatchers must know which bus is for which tour and number limitations, if any.

Tour host

- this person goes with the tour and is responsible for seeing that the bus arrives at its proper destination on schedule and that contact is made with the tour guide at the other end. The Tour Host can also indicate points of interest along the way. Hosts should be available for each individual bus or other means of transportation.

Tour guide

- representative of organization conducting tour and actually conducts the tour.

Safety

- Care should be taken in the planning of excursions so that safety precautions are fully met. A qualified first aid attendant should attend all excursions.

CWSF time line

A typical schedule for key CWSF obligations is outlined as follows:

Upon confirmation of acceptance of CWSF bid

- letter confirming availability of exhibit area and accommodation for participants
- support of important organizations

24 months prior to CWSF

- agreement between the YSF Canada and Host Committee, by signed contract

23 months prior to CWSF

- proposed budget to YSF Canada Executive Committee

20 months prior to CWSF

- preliminary program
- name Chief Judge (to serve as Deputy Judge at preceding CWSF)
- confirmation of approximate funds in-hand or pledged

12 months prior to CWSF

- key members of Host Committee attend the preceding CWSF

October prior to CWSF

- progress report to NSFC
- budget and financial update to YSF Canada Executive Committee
- program completed-information forwarded to YSF Canada for distribution to RSFs first planning meeting-Host Committee, YSF Canada and NSF Committee. The budget and program are approved at this time. Any major changes must be negotiated with YSF Canada Executive Director.

January

- budget and financial update to YSF Canada Executive Committee
- NSFC Chairperson or designate, Host Committee and YSF Canada Executive Director and one designate meet at CWSF site
- all judges recruited and names sent to YSF Canada
- shipping labels for exhibitors (with special instructions, if any) and tour information forwarded to YSF Canada
- detailed outline of events for printed program
- final planning meeting between Host Committee and YSF Canada

May

- budget and financial update to YSF Canada Executive Committee
- print list of exhibitors

YSF Canada bidding policy

Any affiliated Regional Science Fair may bid to host the CWSF. However, it must be recognized that certain circumstances place a bidding RSF at a distinct disadvantage unless the following circumstances exist:

- scheduled airline service;
- air facilities that can handle large chartered aircraft;
- distance to the nearest airport is less than two hours surface travel; and
- facilities are sufficiently expandable to accommodate some growth of the CWSF.

It is also YSF Canada's intent to rotate the CWSF across Canada giving preference, in certain years, to bids from Eastern Canada, Ontario and Western Canada.

Declaration of intent

Affiliated RSFs wishing to bid on hosting a CWSF in an eligible year should submit a letter of intent to the Executive Director of YSF Canada no later than December 31 of the year in which bids are declared open.

YSF Canada will publish annually its bidding schedule and preferred rotation.

The purpose of the letter of intent is to inform YSF Canada and the National Science Fair Committee officially that a region is seriously interested in hosting a future CWSF.

The bid set

Quantity

Ten copies of the bid should be prepared for the CWSF Bid Selection Committee. Arrangements should be made with the YSF Canada Executive Director for the distribution of these copies to the Committee. Copies should be available at least 72 hours before the bid is scheduled to be heard.

Content

The official bid must contain the information listed below. Several previous successful bids are available from YSF Canada.

Administration

- Name, address, telephone/fax numbers and email address of the person responsible for the bid team.
- Names, addresses, telephone/fax numbers, email addresses and qualifications of the key committee members.
- The organization of the Host Committee with a match to committee chairs.
- The qualifications of the Treasurer and the performance record of those responsible for fund raising.
- The depth of leadership and expertise available to the Host Committee.
- The breadth of business and volunteer support in the community.
- Experience with science fairs and specifically, the CWSF.
- Evidence of long-term commitment.

Site Venues

A description of travel arrangements and distances between the following venues must be included:

- Airport

- Accommodations
- Exhibit hall
- Food services
- Banquet facilities
- Awards Ceremony facilities
- Meeting facilities
- Recreational facilities
- Primary regional attraction
- Scientific/cultural tours
- Entertainment
- Site map

Financial

- Commitments (written)
- Regional resources available
- Role of universities and school boards
- Role of municipal, regional, provincial governments
- A proposed budget

Program

- Evidence of the type of program possible to support YSF Canada’s program objective and CWSF goals.

The bid team

The bidding RSF assembles key members of its administration and community to present its case to YSF Canada.

The presentation

YSF Canada will set a schedule to hear bid presentations.

The bid team’s leader introduces the team and ensures that the community makes its best case. The leader is supported by team members who represent specific committee functions. Official bids must be made at least four years in advance of the target year unless special circumstances prevail.

The CWSF Bid Selection Committee

This committee hears each bid presentation and recommends a candidate city to the Board for approval. The CWSF Bid Selection Committee is chaired by the President of the YSF Canada and its membership consists of Board members and NSFC representatives.

The committee hears bids at the CWSF in May and/or at the YSF Canada Annual General Meeting.

Note: Prospective bidders for the CWSF should check with the YSF Canada Executive Director to determine the annual status of bidding.

YSF Canada Board approval

The recommendation of the CWSF Bid Selection Committee is considered by the YSF Canada Board of Directors and the bid which best contributes to YSF Canada’s strategic objectives, program objectives and event goals is announced by the YSF Canada President.

The decision is usually announced at the CWSF closing banquet or at the YSF Canada Annual General Meeting.

Host Chairpersons

The Host Chairpersons of the immediate Past, Present and Future CWSFs must make personal semi-annual progress reports to the CWSF Bid Selection Committee at the CWSF and at the Annual General Meeting.

The CWSF Host Agreement

A Regional Science Fair planning to bid on the CWSF should examine the CWSF Host Agreement to fully understand its obligations. A sample copy of this Agreement can be found in Appendix B. A current copy of the agreement is available from YSF Canada.

List of approved future CWSFs

A list of approved future CWSFs is available upon request.

Appendix A – Treasury Board Guidelines

Travel and living rates and allowances as at July, 2000

Meals

Meals are to be reimbursed at actual cost but may not exceed the guidelines. Meals allowances include gratuities, provincial tax and the GST. For travel status of less than one day:

	All Provinces	Yukon & N.W.T.	Nunavut
Breakfast	\$10.00	\$11.65	\$12.35
Lunch	\$10.30	\$12.05	\$20.05
Dinner	\$27.60	\$34.15	\$38.95

For full calendar day travel status, all meals and incidentals may not exceed \$59.40, or \$69.34 in the Yukon and Northwest Territories, or \$82.85 in Nunavut.

Accommodation

A claim may be made for single occupancy commercial accommodation of reasonable quality and comfort.

Luxury accommodation is not permitted.

Transportation

At actual cost for economy or coach travel by air, bus or rail.

Public transit, airport buses, etc., are to be used for local transportation. If taxi is used, any charge over \$5.00 must be supported by a receipt.

Compact cars are to be used when car rentals are required and the volunteer has received prior approval of YSF Canada, unless the number of passengers or load justify a larger vehicle.

When requested by YSF Canada to use a personal automobile and the volunteer accepts, the following rates apply:

Cents/kilometre

- British Columbia, Newfoundland, Ontario 40.0
- Alberta 37.0
- Saskatchewan..... 36.0
- Manitoba, New Brunswick, Nova Scotia 39.0
- Quebec 43.0
- Prince Edward Island 38.0
- Northwest Territories, Nunavut, Yukon..... 43.5

Note: Current Treasury Board Guidelines are available from YSF Canada

Appendix B – Canada-Wide Science Fair Host Agreement

THIS AGREEMENT made in duplicate as of the xxth day of month, year.

BETWEEN:

YOUTH SCIENCE FOUNDATION CANADA, an incorporated charitable organization (hereinafter referred to as “YSF Canada”)

OF THE FIRST PART

AND

“*Official name of regional science fair*”, (hereinafter referred to as the “Host Committee”)

OF THE SECOND PART

WHEREAS:

- A. YSF Canada is a charitable organization incorporated under the *Canada Corporations Act* to stimulate an interest in science and technology among young Canadians.
- B. YSF Canada has created the National Science Fair Program to further its objectives by encouraging volunteers to initiate local science fair competitions, by setting operational policy standards and by organizing a national science fair known as the Canada-Wide Science Fair as the premier event of the Program to showcase the achievements of Canadian Youth in science and technology.
- C. YSF Canada is the national governing body for the National Science Fair Program and, through the authority of its Board of Directors, approves the proposals of host committees bidding to act in coordinating the staging of the Canada-Wide Science Fair.
- D. A qualified host committee is authorized by YSF Canada to stage the Canada-Wide Science Fair each year at an agreed time and location.
- E. The Host Committee is a committee of the “*Official name of regional science fair*” which is a charitable organization incorporated under the *Canada Corporations ACT*. The purpose of the Host Committee is to host the 200__ Canada-Wide Science Fair in “*city*”, “*province*”, in accordance with this agreement.
- F. The Host Committee has been created to raise funds for, to organize and operate the Canada-Wide Science Fair in “*city*” in 200__ in accordance with this agreement.

NOW THEREFORE in consideration of the Two (\$2.00) Dollars paid by each party hereto (receipt of which is hereby acknowledged), the mutual covenants and agreements contained herein and other good and valuable consideration (the receipt and sufficiency of which are hereby acknowledged) the parties hereto agree as follows:

1. HOST AUTHORIZATION

- a. The Host Committee is hereby authorized to host the 200__ Canada-Wide Science Fair (hereinafter called the “CWSF”) at the City of “*city*”, “*province*”.
- b. The Host Committee shall have the right and obligation to use the name “Canada-Wide Science Fair” and any logo connected therewith in conjunction with all authorized activities of the CWSF, as set out in the 1996 YSF Canada Science Fair Policy, Guidelines and Procedures, a copy of which has been delivered by YSF Canada to the Host Committee (the policy, as amended from time to time in accordance with section 11 of this agreement, is hereinafter referred to as “the Policy”).

2. ACKNOWLEDGEMENTS

- a. The Host Committee shall acknowledge the CWSF in all CWSF event publicity produced as an official event of the National Science Fair Program and YSF Canada, making clear the role of YSF Canada as the national organizer of the Program. In addition, the Host Committee

will acknowledge YSF Canada in all hosting arrangements associated with the CWSF as the national governing body for science fairs and its senior officials, the President, Board of Directors, Patrons, National Advisory Council Members and the Executive Director, so recognized in all matters of protocol.

YSF Canada shall acknowledge the Host Committee and its directors in the CWSF event publicity produced by YSF Canada and all functions under the direction of YSF Canada, making clear the role of the Host committee as the host and organizer of the CWSF. In addition, the Host Committee shall be acknowledged by YSF Canada in all hosting arrangements associated with the CWSF as the host for the 200th science fair and its senior officials, the Chair, Board of Directors, Patrons, so recognized in all matters of protocol.

b. The Host Committee shall ensure that the YSF Canada logo is clearly displayed on all Host Committee correspondence, advertising, promotions and other printed material, with the exception of pins (unless space permits). All CWSF souvenirs (pins, shirts, etc.) shall have the YSF Canada logo or logogram prominently displayed. The Host Committee agrees that all use of the YSF Canada logo or logogram must be consistent with the YSF Canada Guidelines for Logo Usage and must be approved by YSF Canada before contracts are signed with suppliers. YSF Canada will supply the appropriate graphics and the Host Committee will supply YSF Canada with a plan of application.

c. The Host Committee shall not allocate commercial space at the CWSF without the prior approval of YSF Canada to ensure that there is no conflict with the YSF Canada objectives, YSF Canada's sponsors or YSF Canada's insurance liability. The approval of YSF Canada will not be unreasonably withheld by YSF Canada provided the allocation complies with the national standards YSF Canada establishes for all Canada-Wide Science Fairs. The Host Committee will not enter into any exclusivity arrangements or agree to any restrictive covenants with respect to the CWSF without the prior written consent of YSF Canada.

3. INTERNATIONAL PARTICIPATION

a. The Host Committee shall direct all requests for CWSF participation by international students to YSF Canada.

b. YSF Canada shall co-ordinate and collect all relevant registration fees for international participants and pay all costs for international participants prior to the registration deadline.

c. YSF Canada shall notify the Host Committee of the number of international participants no later than the registration deadline.

d. International participation at the CWSF shall be approved by YSF Canada and organized as an activity of the YSF Canada International Program.

4. HOST OBLIGATIONS

a. Notwithstanding any other provisions of the agreement, all matters pertaining to the CWSF shall be subject to final approval of YSF Canada.

b. In organizing the CWSF, the Host Committee shall provide the arrangements, facilities, personnel and accommodations set out in the Policy and within the time limits contained in the Policy.

c. Notwithstanding anything to the contrary contained in the policy, the Host Committee agrees to make arrangements for and pay for all costs relating to:

- i) exhibition space and ancillary services related thereto;
- ii) office space, meeting space and equipment for YSF Canada operations in connection with committees, workshops, awards and judging as indicated in the Policy - the exact number and size to be confirmed by YSF Canada no later than October 31, "*YEAR*";
- iii) tours and events for exhibitors, delegates, officials and judges;
- iv) ground transportation between "*city*" ("*province*") Airport and the CWSF sites(s);

- v) opening and closing banquets;
- vi) facilities for the YSF Canada Awards Ceremony with all arrangements and decoration subject to the prior approval of YSF Canada provided that YSF Canada shall determine and provide the awards and prizes conferred at the said Awards Ceremony. Facilities will be consistent with past fairs and in accordance with the Policy. However, YSF Canada shall appoint and pay all expenses related to the master of ceremonies for the said Awards Ceremony;
- vii) recruiting and training of a qualified Chief Judge, who will be responsible to the YSF National Judge-in-Chief;
- viii) recruiting, registering, briefing of judges (including bilingual judges) who meet the criteria as indicated in the Policy;
- ix) all other on site personnel, equipment and facilities required to carry out the CWSF, as indicated in the Policy;
- x) the timely provision of the Minutes of the Host Committee and any supporting documentation to the Executive Director of YSF Canada; and
- xi) the supply of sufficient DOS (windows)-compatible computers and printers for registration, awards and report generation, including two computers and one laser printer compatible with YSF Canada software to operate existing YSF Canada software.

5. YSF CANADA OBLIGATIONS

- a. YSF Canada shall provide the information set out in the Policy and within the time limits contained in the Policy.
- b. Notwithstanding anything to the contrary contained in the policy, YSF Canada shall make arrangements and shall pay all costs relating to:
 - i) transportation of exhibitors and delegates from the airport nearest their point of origin to the airport most convenient to the location of the CWSF and return;
 - ii) room, board and other expenses of YSF Canada officers, directors and staff and members of the National Science Fair Committee;
 - iii) comprehensive liability insurance, to a maximum of Five Million (\$5,000,000.00) Dollars, and tenants legal liability insurance, to a maximum of One Hundred Thousand (\$100,000.00) Dollars naming the Host Committee as co-insured for the duration of the CWSF week;
 - iv) communications with the Host Committee on a regular basis as stated in the Policy;
 - v) site visits as in the Policy;
 - vi) cost of the closing banquet meal for the presenters of the sponsor-appointed awards;
 - vii) provision of the YSF Canada DOS-based software program necessary for the operation of the CWSF, any current user manuals and any software needed to operate the YSF Canada software program, to be delivered to the Host Committee no later than October preceding the Fair. This software is to be used for registration, awards, report generation and the transfer of registration and awards data to YSF Canada. All software and manuals shall be returned to YSF Canada within 14 days following completion of the CWSF.

6. COMMUNICATION

In order to ensure that all parties to this agreement are kept informed of the CWSF fiscal situation, the Host Committee shall provide YSF Canada with a detailed budget of the revenues and expenditures for the CWSF according to the following schedule;

- a. October 1st of years 1 and 2 prior to the commencement of the CWSF;

b. Each of the six months prior to the CWSF, namely: the first of each month, from November through April.

In the event of a pending shortfall, the Host Committee must develop contingency plans at an early stage to review revenues and expenditures and make the necessary budget adjustments.

7. FINANCIAL

a. The Host Committee will pay all costs incurred in connection with the CWSF which are not the responsibility of YSF Canada pursuant to paragraph 5 of this agreement.

b. The Host Committee will be entitled to keep all of the net revenue generated by the CWSF and will be responsible for any deficit associated with the CWSF. YSF Canada and its board of directors do not accept liability for any deficit incurred by the Host Committee.

c. The Board of Directors has the authority to consider, but is under no obligation to grant, any request by the Host Committee for emergency funding to underwrite a portion of any deficit incurred by the Host Committee. Any consideration for funding would be contingent upon the Host Committee following all of the procedures outlined in the agreement.

d. The Host Committee shall be eligible to access the IBM/NSF Canada Revolving Seed Money Account and to receive an advance not to exceed \$5,000.00 to initiate activities directly associated with the organization of the CWSF. The Host Committee, upon signing the Host Agreement to host the CWSF, must apply in writing to YSF Canada should seed money be necessary. The money must be repaid to YSF Canada by November 1st of the year in which the CWSF is held.

e. While the Host Committee will be entitled to keep any surplus generated by the CWSF, the general expectation of the parties is for the Host Committee to contribute a portion of any surplus to the CWSF host community partners such as the Regional Science Fair Committee(s), in order to support and promote local science fairs and the work of the regional science fair associations.

8. SPONSORS

a. YSF Canada will have the right to recognize its sponsors and contributors at the YSF Canada booth and award ceremony venue, and other locations subject to mutual agreement.

b. YSF Canada will advise the Host Committee of any contributions being considered by “*province*” based companies, exclusive of any “*province*” based companies currently supporting YSF Canada, whose names are listed on the Schedule A attached to this agreement, and YSF Canada will share the revenues received from any new “*province*” based supporters prior to the CWSF in such manner as YSF Canada and the Host Committee may mutually agree to.

c. The Host Committee shall be permitted to display logos and promotional materials of its sponsors at all CWSF venues except that any such display at the awards ceremony venue will be subject to mutual consent.

d. YSF Canada will have the sole right to grant a title sponsorship of the CWSF. The Host Committee will be kept apprised of discussions with potential sponsors and will receive an equitable share of the revenues if a title sponsor is found. Any Host Committee obligations arising from an agreement with a title sponsor shall be negotiated by mutual agreement between YSF Canada and the Host Committee.

9. DISPUTE RESOLUTION

In the event of a dispute concerning this agreement or any matter relating to the conduct of the CWSF which the parties cannot resolve by negotiation, the parties agree that they shall seek immediate resolution of the differences by appointing a mediator agreed to by both parties to convene a meeting within four (4) days of his/her appointment.

If there is no agreement made after the negotiations conducted with the assistance of said mediator, the mediator will make no report on the negotiations or mediation unless otherwise

directed by both parties. No evidence of anything said or any submission is admissible in a subsequent arbitration or other legal proceeding except with the consent of both parties.

In the absence of a negotiated or mediated settlement within one (1) week of the matter being referred to a mediator, the parties agree to appoint an arbitrator to convene a hearing within four (4) weeks of his appointment and make a disposition within three (3) weeks of hearing submissions. The cost of arbitration shall be borne equally by the parties hereto and the arbitration shall be conducted according to the Rules for conduct of arbitration of the Arbitration Institute of Canada Inc. in effect at the date of commencement of the arbitration except where the provisions of this agreement provide otherwise.

The arbitration finding will be a final and binding disposition of matters in dispute between the parties.

10. GOVERNING LAWS

The laws of the Province of Ontario and the laws of Canada applicable therein will govern the interpretation of this agreement.

11. CHANGES TO THE AGREEMENT AND POLICY

This agreement together with the Policy contains all of the terms and conditions of this agreement and no oral or other presentation shall in any way modify, change or alter provisions of this agreement. No amendments to this agreement will be binding unless executed in writing by both parties.

The Policy is subject to regular revision by YSF Canada, without the consent of the Host Committee. The Policy consists of the version of the Policy in effect at the time of signing the agreement, as amended (i) by YSF Canada in its sole discretion during the period commencing on the date of this agreement and ending on the date which is 12 months prior to the date of the CWSF, and (ii) by both parties to this agreement during the 12 month period prior to the date of the CWSF.

IN WITNESS WHEREOF the parties hereto have affixed their hands and seals.

Official name of regional science fair	Youth Science Foundation Canada
Co-Chairperson	President
Date	Date
Co-Chairperson	Executive Director
Date	Date
Treasurer	
Date	
Chief Judge	
Date	

Appendix C – CWSF Safety and Regulations Checklist

Exhibitor name:	Telephone number:
Exhibitor name:	Telephone number:
Project title:	

CHECK OFF THE FOLLOWING POINTS TO ENSURE THAT YOUR PROJECT IS ACCEPTABLE

The project summary (no more than 5 pages) and the Science Fair Project Highlight Sheet are enclosed with the Registration.	2. No more than two people have worked on the project.
3. The exhibit conforms to the rules on maximum size: no more than 3.5m high, 1.2m side to side or 0.8m front to back.	4. The exhibit is self-standing and stable.
5. The background and display materials conform to the fire regulations (refer to Exhibitor Registration Booklet).	6. Hazardous materials were involved in the project. or No hazardous materials have been used. The work was supervised by Name: _____ Qualifications: _____
7. Any hazardous moving parts are protected.	8. No pressurized containers are being displayed.
	9. No open flame is being used.
10. Any flammable or poisonous chemical (solid, liquid, gas) is simulated.	11. Any radio-isotopes present are sealed and at normal background activity.
12. Any electrical power cord is CSA approved and provides necessary grounding	13. Any insulating grommet is used where service enters an enclosure.
14. Any non-current-carrying metal parts are connected to the ground lead.	15. No voltages above 10kV are being generated.
16. Any exposed live parts are at a potential of less than 36 V to ground. Current is low so as not to pose any problem.	
17. Lasers will not be operated during public display.	18. X-ray or other high energy radiation sources, if used, have been registered and approved by provincial authorities
19. Have animals been used? Yes No If yes:	a) Active procedures which could harm or distress the animals were not used. b) Experiments were supervised by: Name: _____ Qualifications: _____ Home Telephone: _____ c) Live animals are not being displayed. d) Animal parts to be displayed meet the regulations.
20. Have microbiological organisms been used? Yes No If yes:	a) No cultures are being displayed. b) No biological toxins are present. c) Experimental manipulations of recombinant DNA molecules or animal viruses were supervised by a qualified person. A letter as required by the regulations will be available at the CWSF
21. If plants have been used, they are not being displayed.	22. If soils have been used, they are not being displayed.
23. If decomposable organic materials have been used, they are not being displayed.	
Exhibitor signature	Exhibitor signature

SPONSORING REGION CONFIRMATION

I hereby certify that the project of _____ [Name(s) of exhibitor(s)] has been checked and found to conform with Youth Science Foundation Canada's Safety and Animal/Human Subject Experimentation Regulations (see Policy, Procedures and Guidelines Manual for the National Science Fair Program, page 4-14).		
Name of Regional Science Fair official:	Work Telephone:	Home Telephone:
Official's signature:	Date:	Name of Regional Science Fair:

Appendix D – Regional Science Fairs in Canada

Newfoundland

1. Central Newfoundland
2. Eastern Newfoundland
3. Western Newfoundland

Nova Scotia

1. Annapolis Valley
2. Chignecto Central West
3. Chignecto East
4. Halifax Dartmouth and County
5. South West Regional School Board
6. Strait

Prince Edward Island

1. Prince Edward Island

New Brunswick

1. New Brunswick

Quebec

1. Abitibi-Témiscamingue
2. Côte-Nord
3. Est du Québec
4. Estrie
5. Mauricie, Bois-Francs, Drummond
6. Montérégie
7. Montréal
8. Montreal (CLS)
9. Outaouais
10. Québec, Chaudières-Appalaches
11. Rive Nord
12. Saguenay-Lac-Saint-Jean

Ontario

1. Algoma Rotary
2. Avon Maitland
3. Bluewater District
4. East Parry Sound
5. Frontenac, Lennox and Addington
6. Hamilton-Wentworth and Halton
7. Kent
8. Lambton County
9. London District
10. Niagara
11. North Bay
12. North Channel
13. Northwestern Ontario
14. Ottawa
15. Peel

16. Peterborough
17. Quinte
18. Renfrew County
19. Rideau St. Lawrence
20. Simcoe County
21. Sudbury
22. Sunset Country
23. Timmins
24. Toronto
25. United Counties
26. Victoria County
27. Waterloo-Wellington
28. Windsor

Manitoba

1. Manitoba Schools Science Symposium
2. Northern Manitoba
3. River East
4. St. James Assiniboia
5. Western Manitoba
6. Winnipeg Schools

Saskatchewan

1. Carlton Trail
2. Fransaskoise
3. Leader
4. North West Saskatchewan
5. Northern Saskatchewan
6. Parkland
7. Prince Albert North East
8. Qu'Appelle Valley
9. Regina
10. Saskatoon
11. Southeast Saskatchewan
12. Swift Current

Alberta

1. Central East
2. Calgary Youth
3. Central Alberta
4. Chinook Country
5. Edmonton
6. Kiwanis
7. Lethbridge
8. Peace Country

British Columbia

1. Central Interior of B.C.
2. Central Okanagan
3. East Kootenay
4. Fraser Valley
5. Greater Vancouver
6. Mainline-Cariboo
7. North Okanagan/Shuswap

8. Northern B. C.
9. Pacific Northwest
10. Vancouver Island
11. Vancouver Island North
12. West Kootenay

Nunavut

1. Baffin Island
2. Kitikmeot
3. Kivalliq

Northwest Territories

1. Beaufort-Delta
2. Sahtu
3. North Slave Student Science Symposium

Yukon

1. Yukon-Stikine

Appendix E – RSF Affiliation Agreement

2000-2001 RSF Affiliation Agreement - Part I

In addition to this page, a complete Affiliation Agreement includes a 2000-2001 RSF/YSF Canada Schedule and Liability Insurance Form. If you do not have a complete package, please call YSF Canada immediately.

YSF Canada agrees to:	
<ol style="list-style-type: none"> 1. administer the National Youth Science Awards Program, which includes: <ul style="list-style-type: none"> • Regional Science Fair Awards: providing a variety of national awards to each of the affiliated fairs • Canada-Wide Science Fair Awards: rewarding excellence at the CWSF by recruiting awards sponsors • Distinguished Service Awards: recognizing volunteers who have made outstanding contributions to YSF Canada’s Programs 2. provide central administration for the pricing, scheduling and payments of the CWSF Travel Plan. 3. support the work of the CWSF Host Committee by developing and distributing the Registration Booklets, 	<ol style="list-style-type: none"> organizing all awards and assisting with recruiting special awards judges, producing the Judging Manual, coordinating the awards ceremony, producing the Awards Ceremony Program etc. (see Policy, Procedures and Guidelines Manual for details) 4. offer an extension of its central insurance policy (see attached Liability Insurance Form for details) 5. support and fund the work of the National Science Fair Committee (see Policy, Procedures and Guidelines Manual for details) 6. furnish updates to the Policy, Procedures and Guidelines Manual 7. grant the Regional Science Fair membership in YSF Canada

The Affiliating Fair agrees to:	
<ol style="list-style-type: none"> 1. hold its Regional Science Fair before, April 20th. 2. adhere to the deadlines outlined in the “RSF/YSF Canada Schedule”. 3. state its affiliation with YSF Canada in its literature. 4. follow the rules and regulations outlined in the Policy, Procedures and Guidelines Manual. 5. provide statistics and other information which YSF may need to characterize the region and Regional Science Fair as requested. 	<ol style="list-style-type: none"> 6. take part in the “CWSF Travel Plan.” Regions within a 5 hour driving radius of the host city, are designated as regions sending their participants by surface travel. Costs associated with surface travel are compensated from the travel plan (see Policy, Procedures and Guidelines Manual for more detail). 7. carry liability insurance for its fair, naming YSF Canada as co-insured. For details, please see the Policy, Procedures and Guidelines Manual.

Important Notes (read before signing):	
<ol style="list-style-type: none"> 1. 2001 CWSF Registration fee is \$575 (tentative) per person. 2. Travel cost for all regions is \$730 (tentative) per person. 3. Signed Affiliation Agreement must be postmarked no later than December 16th. 	<ol style="list-style-type: none"> 4. By signing this Affiliation Agreement: <ul style="list-style-type: none"> • you acknowledge and accept the above conditions • you agree to pay the affiliation fee and travel deposit by the indicated deadline • you agree that the information in “Section A” (on reverse side) is correct as listed or edited.
Affiliation Fees enclosed: Yes ___ No ___	Travel Deposit enclosed: Yes ___ No ___
Insurance payment enclosed: Yes ___ No ___	
Signature: _____	Date: _____
Please complete Part II of this Agreement.	

2000-2001 RSF Affiliation Agreement - Part II

SECTION A - Regional Information

Region: _____
 Zone: _____
 Gr. 7-12 (or equiv.) Population: _____
 Affiliation Fees: _____
 Number of Eligible Adults: _____
 Number of Eligible Exhibitors: _____
 City of Departure: _____

SECTION B - Travel Information

Flying: City of departure listed in SECTION A is correct: YES ___ NO ___
 If NO, please make corrections.

Surface Travel: Any region within a 5 hour drive is designated to use surface travel. If you are not a "designated region" but wish to use surface transportation, please check here: ___

Travel Deposit is \$100 per person. Total amount is based on the number of people attending the CWSF. Give the number of people your region will be sending to the 2001 CWSF:

Exhibitors: _____ Adults: _____

SECTION C - Insurance

All RSFs must carry liability insurance for their fair(s) naming YSF Canada as co-insured. There are two options, please mark one:

___ Region will purchase an extension of YSF Canada's insurance policy, which provides \$5,000,000 in coverage. The Liability Insurance Form has been completed and the fee is enclosed.

___ Region will obtain its own coverage and will name YSF Canada as co-insured. (Please return proof of coverage to YSF Canada at least 30 days before your fair.)

SECTION D - Date and Location of your fair

The information provided below will be distributed to sponsors, members, M.P.s, the general public, etc.

Date of your 2001 Regional Science Fair: _____
 Is this date confirmed: YES ___ NO ___ (confirmation required by January 6th).

Location(s) and address(es) of Regional Science Fair(s):

SECTION E - Committee List

Please type or print legibly

All mailings of material and information will be sent to the person listed as "chairperson." It is the responsibility of that person to ensure that information is forwarded to the appropriate person on his/her committee. We require the name and address of a second person on your committee. It can be the Vice-chairperson or someone else.

Chairperson		
Address		
City	Province	Postal Code
Home Phone:	E-mail:	
Business Phone:	Fax:	

Other representative		
Address		
City	Province	Postal Code
Home Phone:	E-mail:	
Business Phone:	Fax:	

SECTION F - Financial Summary

\$100 x _____ (number of participants) = \$ _____ Non-refundable travel deposit (This amount must reflect information given in SECTION B)

\$ _____ + Affiliation Fee (see SECTION A)

\$ _____ + Insurance \$155.00 (Optional -- see SECTION C)

\$ _____ TOTAL OWING – Send fees with signed Affiliation Agreement to YSF Canada.

MUST BE POSTMARKED NO LATER THAN DECEMBER 16th

YSF Canada Liability Insurance

YSF Canada offers an extension of its central policy at a special price of \$150 which provides \$5,000,000 in coverage including commercial general liability, bodily injury liability and property liability to a limit of \$5,000,000 per occurrence with an aggregate limit of \$5,000,000 each policy year.

If your region has decided to purchase this insurance, please complete the form below and return it to YSF Canada. Each Region will be issued a certificate of insurance no later than one week before their fair.

It is imperative that you comply with the following deadlines:

If the date of your fair is in the month of **March**, YSF Canada must receive this form by January 30th.

If the date of your fair is in the month of **April**, YSF Canada must receive this form by February 28th.

YSF Canada Insurance Form

Complete the form below and return it to YSF Canada with payment as per instructed above. This form will be sent directly to the insurance company, therefore, please provide complete and accurate information.

Please type or print legibly

Regional Science Fair Name:		
Chairperson:		
Address:		
City:	Province:	Postal Code:
Work Phone:	Home Phone:	
Science Fair Date:		
Location(s) and address(es) of science fair(s):		

Payment of \$150.00 is enclosed: ___ YES ___ NO

Appendix F – Vice Chairperson Nomination Form

Vice-Chairperson Nomination Form YSF Canada National Science Fair Committee

Please note: Only first delegates (not alternates) may nominate or second candidates for the position of Vice-Chairperson.

PLEASE PRINT!

Name of Candidate:

Name _____ Region _____

Nominated by: :

Name _____ Region _____
Signature _____

Seconded by: :

Name _____ Region _____
Signature _____

Candidate's declaration:
I am pleased to offer my candidacy for the position of Vice Chairperson.

Signature of candidate

Received by:

Signature of Past Chairperson _____ Date _____ Time _____

Appendix G – Zone Representative Nomination Form

Zone Representative Nomination Form YSF Canada National Science Fair Committee

Please note: Only first delegates (not alternates) may nominate or second candidates for the position of Zone Representative.

PLEASE PRINT!

Zone: _____

Name of Candidate:

Name _____ Region _____

Nominated by: :

Name _____ Region _____
Signature _____

Seconded by: :

Name _____ Region _____
Signature _____

Candidate's declaration:
I am pleased to offer my candidacy for the position of Zone Representative.

Signature of candidate

Appendix H – Delegates Meeting Motion

Delegates Meeting Motion

PLEASE PRINT!

Date: _____

Name: _____

Region: _____

Agenda Item Number (assigned by NSFC Chairperson): _____

Motion: :

Moved by: :

Name Region

Signature

Seconded by: :

Name Region

Signature

Appendix I – Distinguished Service Award

Youth Science Foundation Canada Distinguished Service Award Nomination Form

The Distinguished Service Award recognizes volunteers who have made outstanding contributions to YSF Canada's programs. Any organization, committee or individual at the local, provincial or national level can make nominations for the award. A person may be nominated more than once, and the nomination shall be in effect for three years. Awards may be granted posthumously. A committee will review nominations, and final selection will be made by YSF Canada. Selected recipients will receive a plaque that YSF will send to the nominator for presentation. A photograph and profile of each winner will be displayed at the Canada-Wide Science Fair. Carefully read the instructions below. Be sure the documentation is clear and complete, as it will be used to determine the success of the nomination. Nominations are to be returned to YSF by December 15th. Consider the criteria on the following page when composing the nomination.

This form is the covering page for the nomination. Include a summary, no longer than 3 typewritten pages that provides specific evidence of the nominee's contributions, examples of innovations or leadership, and the impact of his/her efforts. Refer to the criteria on the following page. Also include two letters of support.

Nominee

Name:	
Address:	
Home Tel:	Work Tel:
E-mail:	

Nominator

Name:	
Address:	
Home Tel:	Work Tel:
E-mail:	

Other References:

Name:	Home Tel:
Work Tel:	E-mail:

Name:	Home Tel:
Work Tel:	E-mail:

Record of Service

List the types and duration of service (e.g., Regional Science Fair Chief Judge..... 1991-1998)

Continue on a separate page, if necessary.

DISTINGUISHED SERVICE AWARD CRITERIA

Criteria	Level 1	Level 2	Level 3	Level 4
School Fair Involvement	limited school fair involvement	some school fair involvement; initiated a science fair related program locally (i.e. Science Olympics)	considerable school fair involvement; initiated some local science fairs and/or related programs (i.e. Science Olympics)	coordinated many school science fairs; initiated many local science fairs and/or related programs (i.e., Science Olympics)
Regional Fair Involvement	limited RSF involvement (1-3years)	some RSF involvement; coordinated one or two facets of RSF over 3 - 5 years; some work in local community and/or schools to promote science fairs	considerable RSF involvement; coordinated several facets of RSF over 5 - 10 years; considerable work in local community and/or schools to promote science fairs	heavily involved in RSF; (10+ years involvement); Chair of RSF for some time; actively promoted science fairs in the local community and/or schools for many years
CWSF Involvement	limited assistance to local team attending the CWSF; volunteered on a CWSF Host Committee	some assistance to local team attending the CWSF; attended one CWSF as the delegate or alternate; coordinated one event as a member of a CWSF Host Committee	considerable assistance to local team attending the CWSF; attended two or three CWSF as the delegate or alternate; coordinated several events as a member of a CWSF Host Committee	supported local team attending the CWSF to a very high degree; attended over three CWSF as the delegate or alternate; Chair of a CWSF Host Committee
NSFC Involvement	limited involvement with the NSFC	supported NSFC duties at the regional level; worked with the Zone Rep at the local level	supported NSFC duties at the CWSF; acted as Zone Rep for a three year term; was an active member of the NSFC; was a lead person for a NSFC initiative	served on the NSFC Executive; supported and implemented several NSFC initiatives
YSF Canada Involvement	limited involvement with the YSF Board and its initiatives	some involvement with the YSF Board and its initiatives	considerable involvement with the YSF Board and its initiatives; served as a Board member	high involvement with the YSF Board, served as an active member of the Board taking on one or more initiatives
Overall contribution	limited contribution to the achievement of YSF mission and goals	some contribution to the achievement of YSF mission and goals	considerable contribution to the achievement of YSF mission and goals	significant contribution to the achievement of YSF mission and goals

Appendix J – Application for Review of Research with Human Participants

Application for Review of Research with Human Participants Students may use this form, or type an application of 1 to 3 pages with the same headings. Answer the questions in their numbered order, including the question number with each answer.	
Supervising Teacher	Telephone
School	Regional Science Fair
Student Researcher Name 1	Student Researcher Name 2
Address	Address
Telephone	Telephone
Title of Project	
1. Briefly describe the purpose of this project	
2. Who, and what number of participants will be involved in this project?	
3. How will the participants be recruited for this project? (Attach a copy of any recruitment notice or letter.)	
4. Briefly outline what the participants will be expected to do. (e.g., surveys, interviews, tests, etc.). Attach a copy of test materials, surveys, questionnaires, or interview questions to be used.	
5. What are the potential risks to the participants in this project (physical, psychological, emotional)?	
6. What are the potential benefits to this project (e.g. to the participants, to society)?	
7. Will informed consent of the participants be obtained in writing? If not, explain why. Attach a copy of the information consent form to be used.	

8. How will you ensure anonymity of the participants and confidentiality of their data?

9. Describe the plans to provide the participants feedback or a summary of the study.

I HAVE READ THE YSF CANADA GUIDELINES FOR RESEARCH WITH HUMAN SUBJECT AND AGREE TO COMPLY WITH THE GUIDELINES. FURTHER, I AGREE TO NOTIFY YSF CANADA OF ANY CHANGES TO THIS PROJECT.

Signature of Student Researcher	Date
---------------------------------	------

Signature of Student Researcher	Date
---------------------------------	------

Signature of Supervising Teacher	Date
----------------------------------	------

Ethics Review Committee Comments:

Signature of Ethics Committee Chairperson	Date
---	------

Appendix K – Safety Checklist

Name(s): _____

Title: _____

Project #: _____

Area	Specifics	Passed	Concern
Dimensions	Entire exhibit fits within a space 1.2 m wide x 0.8 m deep x 3.5 m high (from the floor)		
Backboard Materials	Backboard is constructed of wood or wood products of at least 1/4' thickness, coroplast, or is a ULC-approved display board		
	Panels decorated with paper that is securely applied so that minimal air pockets are left behind the paper		
	Overlapping or loose sheets of paper are stored in a data book or binder		
General	Exhibit is sturdy and self supporting		
	Moving parts such as belts, pulleys and propeller blades are guarded		
	All sharp edges or corners on prisms, mirrors, enclosures, and glass/metal plates are removed or protected		
	Pressure vessels have a safety valve - no compressed gas cylinders		
Fire	Combustible materials are away from heat sources		
Chemical	Substitutes used are labeled as 'simulated'		
Electrical	Low voltage; ground fault interrupter for leaks/faults		
	Insulating grommets required at points of entry to enclosures		
	Electrical appliances are CSA or UL approved or have 3-wire conductor with ground		
	Exposed live parts are less than 36 volts; current (amperage) is low so as not to cause discomfort or danger if touched		
	Non-current carrying metal parts are grounded		
	Wet cells are not on display		
X-Rays or Radiation	Registration of ownership with student's provincial government		
	All voltages used are less than 10 kV		
Bio-hazards	Radioisotopes or compounds containing radioisotopes are below normal background		
	Biological toxins or microorganisms are not on display		
	Cells or tissues infected with animal or plant viruses are not on display		
	Plant/soil/materials which could decompose are not on display		

Approved: _____

Date: _____

Appendix L – Contribution From a Recognized Institution

Youth Science Foundation Canada Canada-Wide Science Fair – Contribution From a Recognized Institution

The Science Fair participant(s) that you have generously agreed to help has/have chosen to develop one of three types of project: **Experiment, Study or Innovation**. Please note that this project is subject to the *Policy, Procedures and Guidelines* of the Youth Science Foundation Canada and any applicable federal, provincial, or municipal legislation. You may wish to request a copy of the YSF rules governing projects from the participant(s) or visit the official Youth Science Foundation Canada site at www.yzf.ca. The Youth Science Foundation Canada wishes to thank you for your help and encouragement.

PARTICIPANT(S) & PROJECT:	
Participant's Name (1)	Participant's Name (2)
Title of Project	
Project Type (Check only one): <input type="checkbox"/> Experiment <input type="checkbox"/> Study <input type="checkbox"/> Innovation	

RECOGNIZED INSTITUTION:	
Name and address of institution that contributed to this project:	Name(s) and qualifications of supervisor(s):

INSTITUTION'S CONTRIBUTION:
Please summarize the ways in which your institution contributed to the completion of this project:
Based on your knowledge of this project's field of study, does this project verify, replicate, or present existing scientific knowledge? How is this project innovative? Did the original idea come from the participant or a member of your institution?:

EXPERIMENTAL PROJECTS ONLY:	
Did the project require the use of hazardous biological materials (bacterial pathogens, viruses, DNA, etc.)?	___ Yes ___ No
If hazardous biological materials were used, please indicate whether they were handled under the supervision of qualified personnel in a facility equipped to handle such materials.	___ Yes ___ No
Did the project involve the use of laboratory animals?	___ Yes ___ No
If animals were used, please specify whether they were vertebrate or invertebrate animals.	___ Vertebrate ___ Invertebrate
If animals were used, please indicate whether they were handled under the supervision of an ethics committee that complies with the rules and standards of the Canadian Council on Laboratory Animal Care?	___ Yes ___ No

DISPLAY, ORAL PRESENTATION & WRITTEN REPORT:	
Have you discussed the content of the project's display and oral presentation with the participant(s)?	___ Yes ___ No
If yes, do the display, oral presentation, and written report accurately reflect the original contribution of the participant(s) and clearly identify the contribution of your institution and its personnel?	___ Yes ___ No
Have you read the written report of the project prepared by the participant(s)?	___ Yes ___ No
If yes, does this report accurately reflect the original contribution of the participant(s) and clearly identify the contribution of your institution and its personnel, in addition to including a complete list of relevant references?	___ Yes ___ No
If yes, does this report include a complete list of relevant references?	___ Yes ___ No

AUTHORIZATION TO PRESENT RESULTS:	
Is/are the participant(s) authorized to present these research results in public?	___ Yes ___ No

COMMENTS:

SIGNATURE OF SUPERVISOR OR REPRESENTATIVE OF RECOGNIZED INSTITUTION:		
Name and position (Please print):	Signature:	Date:

Appendix M – Judge’s Marking Sheet

Judge’s Marking Sheet – Canada-Wide Science Fair

PART A: SCIENTIFIC THOUGHT – 45 %			Mark
Experiment An investigation undertaken to test a scientific hypothesis using experiments. Experimental 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 affect relationships or theoretical investigations of scientific data.	
Level 1 (low) – Mark Range 5 to 15			
Duplication of a known experiment to confirm the hypothesis. The hypothesis is totally predictable.	Building models (devices) to duplicate existing technology.	Study of 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 of material collected through 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 with controls. Variables identified. Some significant variables are controlled. Analysis such as graphs/simple statistics.	Design and build innovative technology or provide adaptations to existing technology that will have human benefit and/or economic applications.	Study based on observations and literary research illustrating various options for dealing with a relevant issue. 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. Data analysis includes statistical analysis.	Integrate several technologies, inventions or designs and construct an innovative technological system that will have human and/or commercial benefit.	Study correlating information from a variety of significant sources which may illustrate cause and effect or original solutions to current problems through synthesis. Significant variable(s) are identified with in-depth statistical analysis of data.	

PART B: ORIGINAL CREATIVITY – 25%			
Level 1 (low) Mark Range 5 to 10	Level 2 (fair) Mark Range 10 to 15	Level 3 (good) Mark Range 15 to 20	Level 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 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			

Paste Label here

PART C: DISPLAY
Maximum 20 Marks

1. Skill (Maximum 10)	Max	Mark
Necessary scientific skill shown.	3	
Exhibit was well constructed.	3	
Material prepared independently.	2	
Judge's discretion.	2	
2. Dramatic Value (Maximum 10)		
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 information presented clearly with continuity?	2	
Summary accurately reflects 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 Chair of your Judging Team.**