

Greenville County *and South Carolina Region IA* Science and Engineering Fair



Sponsored by
Roper Mountain Science Center
Rotary Club of Greenville

Open to Middle School Students Grades 6-9 in the Following Counties:
Greenville Laurens Greenwood Abbeville

Senior High Division Teacher's Official Entry Packet

Competition Guidelines

Instruction Sheet for Students

Forms: **Senior Entry Form** (*Deadline for forms - Feb. 21, 2003*)

Required (1) Checklist for Adult Sponsor

Required (1A) Research Plan OR (1A) Team

Required Research Plan Attachment

Required (1B) Approval Form

Bring to fair Required Abstract

Optional (1C) Registered Research Institution Form

Optional (2) Qualified Scientist Form

Optional (3) Designated Supervisor Form

Optional (4A) Human Subjects Form

Optional (4B) Informed Consent Form

Optional (5) Non-Human Vertebrate Animal Form

The Greenville County Fair uses forms from the International Fair.

They can be downloaded at:

Fair Rules and Guidelines www.sciserv.org/isef/primer/rules_regulations.asp

Rules Wizard www.sciserv.org/isef/primer/wizard/index.asp

Wednesday, March 19th 2003

Award Competition at The Pavilion Recreation Complex, Greenville, SC - 10:00 AM-3:45 PM

Award Ceremony at Roper Mountain Science Center – Tuesday, March 25, 2003, 7:00 PM

Attention Teachers: A school fair is not required for students to participate in the fair.

Competition Guidelines

Eligibility – Please note: A school science fair is not required for students to participate in this competition.

The academic competition is open to public or private school students in Grades 9-12 from Greenville, Laurens, Abbeville or Greenwood Counties. Students must be selected by their schools or teachers before they are eligible to enter. Entry forms are to be completed by the students and sent to the competition Director **by the student's teacher**. Entries must be received by the **deadline of Friday, February 21, 2002**. No substitutions or additions will be allowed unless pre-approved.

Dates: Friday, February 21, 2003

DEADLINE for submission of all required forms.

Wednesday, March 19, 2003

COMPETITION DAY

10:00 AM	Projects Set-up
11:00 AM	Judging Begins
12:30 PM	Lunch Break for Students
1:00 PM	Judging resumes
3:45 PM	Competition Ends

Tuesday, March 25, 2003

7:00 PM Awards Ceremony at Roper Mountain

Categories: Behavioral & Social Science, Biology, Chemistry, Engineering, Environmental Science, Math/Computer Science, Medicine, Health and Physics, and **TEAM CATEGORY – Up to 3 students per team.**

TEAM PROJECT CATEGORY - 3 PERSON MAXIMUM. Teams will compete for **separate** awards from individual projects. A team captain must be designated, however, each member must participate in the investigation. Members may not be substituted, and projects cannot be converted to an individual project after submittal. **Each** team member must submit **1B Forms**. However, team members must jointly submit **the Checklist for Adult Sponsor** and a **Team Research Plan (1A)**, and other required forms.

There are no limits on the number of Projects that can be submitted to the 2003 Fair.

Teachers should insure that the projects meet the high-quality expectations of a regional fair.

Note: Any student may participate in the fair. A school fair is not required.

FORMS ENCLOSED ARE REQUIRED FOR ALL PROJECTS IN THE COMPETITION.

- | | |
|---|--|
| 1. Entry Form (Front & Back) | For entry into the competition |
| 2. Research Plan (1A) | Students complete before starting project |
| 3. Approval Form (1B) | Students complete before starting project |
| 4. Checklist for Adult Sponsor/
Safety Assessment Form | Teachers complete before starting project. |
| 5. Abstract | Students put on project after completion of project |

Exhibit Information and Liability - Dimension Limits: 60 cm (24") depth by 122 cm (48") width by 274 cm (108") height. Electric cord of 3 m. allowed if electric current (110 AC) is needed. No running water or gas is available at exhibit tables. Exhibits must be brought, cared for, and removed from the fair by the exhibitor. The Science Fair and cooperating sponsors will assume no responsibility for loss or damage to any exhibit. Valuables such as computers, meters, cameras, microscopes, etc., should not be left unattended. The exhibit should be self-explanatory, even in the absence of valuables. Any items left at the fair will be disposed of by fair personnel.

For More Forms: Call 679-7001 or download the International forms from the International Science & Engineering Fair Website - www.sciserv.org/isef/primer/rules_regulations.asp

Overview and Guidelines (continued)

The following Exhibits will be Disqualified

1. Exhibits involving studies of recombinant DNA of animals, humans, or their tissues, blood or organs.
2. Any exhibit with live or preserved organisms on display.
3. Any photographs on a display board showing surgical techniques, dissection, autopsies, or other lab techniques depicting vertebrates in other than normal conditions. Such photographs are permitted in an accompanying notebook.
4. Any display of live microbial or fungal cultures.
5. Any display of water, dangerous chemicals, pen flames or explosives, or other item hazardous to the public.

Teacher Instructions and steps to complete forms.

1. Review the competition's rules packet.
2. Make sure your school has the two committees below. One of these committees must approve **each project**. If the project involves humans the IRB approval is required instead of the SRC (see description of IRB on pages 11-12 in the ISEF rule booklet).

School - Scientific Review Committee (SRC)

Approves **ALL** student projects not involved in human research

Composed of:

1. Biomedical Scientist (PhD., M.D., D.V.M., D.D.S. or D.O.)
2. A Science teacher (not the sponsoring teacher/parent)
3. One other member

School - Institutional Review Board (IRB) Approves ALL projects involved in Human Research.

Composed of:

1. Registered nurse, psychologist, psychiatrist, or medical doctor
2. A Science teacher (not the sponsoring teacher/parent)
3. School administrator.

3. Hold your school fair before the **entry deadline of February, 21, 2003.**
4. Copy the "**Research Plan (1A) and Approval Form (1B) and Abstract**" for each student to complete.
5. Provide the additional forms as needed depending on the project.
6. Complete the "**Checklist for Adult Sponsor**" form for each project.
7. Have chairperson of your school IRB/SRC sign the student's approval form **before** the research begins.
8. Arrange for a judging or selection procedure to insure top quality projects are sent to the competition.
9. Give an "**Entry Form**" to each winner and be sure the entry form, Research Plan, Approval Form, Checklist for Adult Sponsor, Abstract and all other required forms are sent to the competition director.
10. Make a copy of the forms and mail them to meet the deadline.
11. Go over page 6 of the ISEF Rule Book with students before they complete their projects' exhibit so they know what can and cannot be displayed.
12. An abstract is required to be written **at the completion of the project** and brought to the fair.
13. You will receive a **LIST OF APPROVED ENTRIES** in early March on the deadline listed above.
14. Prepare student winners for the competition.
15. Upon arrival at the Pavilion Recreation, each entry will be reviewed by the Competition Safety Committee.

Awards

- *Expense paid trips for students and a teacher to the INTERNATIONAL Science & Engineering Fair in Louisville, Kentucky in early May of 2003.*
- *Many cash awards for first, second and third place student winners and their teachers.*
- *Cash awards for Team Project Winners and their teachers.*
- **Every** student will receive a signed **Certificate of Participation**.
- **School award presented in honor of the first place, overall, individual student.**
- **Many Additional Awards** for students and teachers including bonds, prizes, medals and special certificates.

Senior Entry Form

Sr.

For Fair Official Use
 Date In _____
 App. # _____
 Cat./No. _____

Check One: _____ *Individual* -OR- _____ *Team*

PLEASE PRINT IN INK. ALL BLANKS MUST BE COMPLETE OR FORM WILL BE RETURNED.

Deadline is Friday, February 21, 2003

Do not Fax – Forms MUST be Mailed.

Student: _____

(or Team Captain #1) *Last Name* *First Name* *Middle Name* *Social Security Number*

_____ *Street Address* _____ *Telephone*

_____ *City* _____ *County* _____ *State* _____ *Zip Code*

School: _____

_____ *Name* _____ *Address* _____ *Telephone*

_____ *City* _____ *County* _____ *State* _____ *Zip Code*

_____ *Principal's Name* _____ *Fax Number*

Teacher Sponsor _____

Name

_____ *Home Address* _____ *Telephone*

_____ *City* _____ *County* _____ *State* _____ *Zip Code*

Print the Title of Your Project:

Exhibit Category (Check one only)

- Behavioral & Social Sciences
- Biology
- Chemistry
- Engineering
- Environmental Science
- Math/Computer Science
- Medicine and Health
- Physics
- Team (3 students Max.)

Grade Level (Check one)

- 9th 10th 11th 12th

Exhibit Needs

- Electricity (cord will be provided)
Remember table space is 24" by 48"
- Floor Space for tall/heavy item.

Age: _____ **Sex:** _____

TEAM MEMBERS - MUST COMPLETE THE BACK OF THIS FORM

Senior Entry Form (Second Page)

TEAM Entry Section

Sr.

Team Project Member Information - LIMIT THREE TEAM MEMBERS (from the same school.)

Team Student #2: _____
Last Name First Name Middle Name Social Security Number

Street Address Telephone

City County State Zip Code
Grade Level 9th 10th 11th 12th Age: _____ Sex: _____

Team Student #3: _____
Last Name First Name Middle Name Social Security Number

Street Address Telephone

City County State Zip Code
Grade Level 9th 10th 11th 12th Age: _____ Sex: _____

THREE TEAM MEMBER LIMIT

**ALL TEAM MEMBERS MUST BE ACTIVE PARTICIPANTS
IN ALL INVESTIGATIONS.**

**NOTE ALL OTHER RULES IN THE TEAM CATEGORY SECTION IN
OVERVIEW AND GUIDELINES**

**TEACHERS SHOULD COMPILE AND SUBMIT ALL
STUDENT FORMS TOGETHER.**

We look forward to your participation in this year's competition

Abstract

Required
Bring to the Fair and display on your project.

Type the abstract on this sheet or attach a separate sheet labeled ABSTRACT.

The abstract is a required part of the student's project. The abstract should be **limited to 250 words** on **one page**. An abstract should include: **1) Purpose of the experiment, 2) Procedures Used, 3) Data and Conclusions.** **An abstract should not include: 1) Acknowledgements or 2) Work or procedures done by the mentor.** The abstract should fit on remainder of this page.

Instruction Sheet for Students

Instructions to be used to submit an Entry Form and Participate in the Science Fair

1. Complete and submit the forms listed below. Depending on the project, additional forms may be required.
 - (1) Checklist for Adult Sponsor
 - (1A) Research Plan or (1A) Team Research Plan
 - Research Plan Attachment
 - (1B) Approval form 1B
2. **Remember** – Your parent and teacher must sign and date the approval form **BEFORE** the date you list as the starting date of your research.
4. **Abstracts** must be completed after your project and brought to the competition (Form Attached).
5. If your Research Plan required advanced approval from a Scientific Review Committee you probably need additional forms. These forms can be obtained from your teacher in the “**International Rules Booklet**” or downloaded from the website for the International Science and Engineering Fair (I.S.E.F.) - www.sciserv.org/isef/. Below is a list of forms, which may be necessary:
 - Form (1C) Registered **Research Institutional/Industrial Setting Form**. Necessary if the research was conducted in an institutional (university, government lab etc. Or industrial setting).
 - Form (2) **Qualified Scientist Form**. Required for research involving animals, controlled substances, pathogen, or humans (if deemed required by IRB).
 - Form (3) **Designated Supervisor Form**. Required if the Qualified Scientist is unable to supervise the experiment or for certain projects using hazardous materials or devices.
 - Form (4A) **Human Subjects Form**. Required for all research involving humans.
 - Form (4B) **Informed Consent Form**. Required of all projects involving human subjects.
 - Form (5) **Non-human Vertebrate Animal Form**. Required for all research involving non-human vertebrate animals.
 - Form (6) **Human and Animal Tissue Form**. Required for all projects using viable fresh tissue, organs, human or animal parts, including blood, blood products, teeth, cell cultures, and body fluids. Plant tissue is excluded.
6. Make a copy of all forms to send to the **Greenville County Science Fair** director by the deadline.
7. By early March your teacher will receive official notification about your entry.
The Regional Scientific Review Committee will have examined;
 - a. Evidence of library research (You must have a minimum of 3 literature references in your bibliography part of form 1A).
 - b. Type and amount of supervision
 - c. Use of, and demonstrated skill in, accepted research techniques
 - d. Completed forms and signatures
 - e. Humane treatment of animals
 - f. Compliance with rules and laws governing human research

Any projects sent to the competition director without required signatures and forms will be returned.
8. On the day of the competition **arrive at the Pavilion by 10:00 AM** to set up your project. When you pick up your name tag it will designate the location for your project. You will not be able to display: living plants, animals or microbes, dried plant materials, taxidermy specimens or parts, preserved vertebrates or invertebrates, human/animal parts (but teeth, hair, bones, are OK), soil or waste samples, chemicals including water, poisons, drugs, controlled substances, dry ice or other sublimating solids, sharp items (i.e., syringes, needles, pipettes), flames or highly flammable display materials, empty tanks that previously contained combustible liquids or gases, awards, medals, business cards, flags, personal photos, lists of accomplishments, photos showing surgery, dissection, or necropsies.
9. Your exhibit should include a project notebook, abstract, research paper, visual display, and the originals of your entry forms.
Mail Entries to: Greenville Co. Science Fair
% Roper Mountain Science Center
Attn.: Greg Cornwell
402 Roper Mountain Rd. Greenville, SC 29615-4229
For More Information: Phone: 679-7001 or 281-1188

Greenville County and South Carolina Region IA Science and Engineering Fair



Sponsored by
Roper Mountain Science Center & Rotary Club of Greenville

Senior Division - Student's Official Entry Forms

Instruction Sheet for Students

Forms to Be Submitted to Teacher

Required Senior Project Entry Form (*Deadline for forms - Feb. 21, 2003*)
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For safety and public health reasons the following exhibits will be disqualified.

6. Exhibits involving studies of recombinant DNA of animals, humans, or their tissues, blood or organs.
7. Any exhibit with live or preserved organisms on display.
8. Any photographs on a display board showing surgical techniques, dissection, autopsies, or other lab techniques depicting vertebrates in other than normal conditions. Such photographs may be kept in an accompanying notebook however.
9. Any display of live microbial or fungal cultures.
10. Any display of dangerous chemicals, water, pen flames or explosives, or any other item hazardous to the public.

Awards

- **Cash awards and medals presented to first, second and third place winners in each category.**
- **Cash awards for first place winner's teachers and overall competition winner.**
- **School Award** presented in honor of the first place, overall student winner.
- **Other prizes** include cash, bonds, prizes, medals and special certificates.