



Granite District Science Fair

Science Fair Entry Form – Grades 5-8

Guidelines for Entry for the Granite School District & SLVSEF Fairs
FOR REFERENCE ONLY, all Regional registrations will be ELECTRONIC



This form is for reference only. Students in grades 5-8 in the Granite District who would like to participate in either the Granite District Science Fair OR the Salt Lake Valley Science and Engineering Fair (SLVSEF) must **comply** with all four pages of this entry form to become eligible to compete. **Neither GSD nor SLVSEF will collect this form**, but all regulations in it will be followed.

Granite District Registration: \$1 per student. If a project wins at the Granite Fair, participants will need to pay the SLVSEF fee of \$15-\$20.

For GSD fair winners only: There is a \$15.00 registration fee for all individual projects and a \$20 registration fee for team projects. SLVSEF participants will also be **required** to register online at <http://www.utahsciencecenter.org/sciencefair/participate/student.php#form> by March 6, 2009. Forms can be faxed to Jody Ostrander at 1-866-255-6028. For more information visit www.utahsciencecenter.org/sciencefair

Student Information

Student's Name _____ Grade Level: (Check One) 5 6 7 8

Mailing Address _____

City _____ Zip _____ Home Phone _____

Is your project a team project? If so, all members must be listed below.

Student's Name _____ Grade Level: (Check One) 5 6 7 8

Mailing Address _____

City _____ Zip _____ Home Phone _____

Student's Name _____ Grade Level: (Check One) 5 6 7 8

Mailing Address _____

City _____ Zip _____ Home Phone _____

Project Information

Project Title _____

School _____ District _____

Teacher Name (first & last name) _____ Teacher's Email _____

Parent/Adult Supervisor's Name _____ Phone _____

Elementary/Junior Division Categories (check one):

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Animal Sciences | <input type="checkbox"/> Chemistry | <input type="checkbox"/> Engineering: Electrical/Mechanical | <input type="checkbox"/> Medicine & Health |
| <input type="checkbox"/> Behavioral & Social Sciences | <input type="checkbox"/> Computer Science & Mathematics | <input type="checkbox"/> Energy & Transportation | <input type="checkbox"/> Microbiology |
| <input type="checkbox"/> Biochemistry | <input type="checkbox"/> Earth & Planetary Science | <input type="checkbox"/> Environmental Management | <input type="checkbox"/> Physics & Astronomy |
| <input type="checkbox"/> Cellular & Molecular Biology | <input type="checkbox"/> Engineering: Bioengineering | <input type="checkbox"/> Environmental Sciences | <input type="checkbox"/> Plant Sciences |

Answers to the following questions are required:

- | | | |
|---|---|----|
| 1. Does your project require electricity? (not allowed at GSD fair) | Yes | No |
| 2. Is your project a team project? (circle one) | Yes | No |
| 3. Is your project display too tall for a table? | Yes | No |
| 4. What are the dimensions of your project display (in inches)? | $\frac{\text{Depth}}{\text{Depth}} \times \frac{\text{Width}}{\text{Width}} \times \frac{\text{Height}}{\text{Height}}$ | |

SCIENCE FAIR PROJECT RULES

My Experiment will Involve the Following (check all that apply):

Human Subjects

All human research projects must be **reviewed** and **approved** by a science teacher, a school administrator and one of the following: a psychologist, psychiatrist, medical doctor, physician's assistant or registered nurse **before the student begins experimentation**. If they determine that there is more than minimal psychological or physical risk to the human subjects involved in the project, the student must receive written consent from each of the participants and written parental consent for students under 18 years old. If they determine that there are unacceptable risks involved the student must revise his or her project. *Please attach a copy of the surveys or tests* you intend to use with your research plan. Students may not publish or display information that identifies the human subjects.

Non-Human Vertebrate Animals

All projects involving non-human vertebrate animals must be **reviewed** and **approved** by two science teachers and a biomedical scientist (ex. a local veterinarian) **before the student begins experimentation**. Alternatives to the use of vertebrate animals must be explored and included in the student's research plan. Experiments involving laboratory animals (rats, mice, hamsters, gerbils, rabbits, etc) cannot be conducted in a student's home except for behavior studies on pets. Proper animal care must be provided daily, including weekends, holidays and vacations. Experimental procedures that cause unnecessary pain or discomfort are prohibited. Experiments designed to kill vertebrate animals are not permitted. Students may not perform euthanasia, except in emergency situations. Alcohol, acid rain, insecticide, herbicide and heavy metal toxicity studies are prohibited. Experiments with a death rate of 30 percent or higher are not permitted. Behavioral studies or supplemental nutritional studies involving pets or livestock may be done at home.

Controlled Substances (Prescription Drugs, Tobacco, Alcohol, etc)

All projects involving controlled substances must be **reviewed** and **approved** by two science teachers and a school administrator or biomedical scientist **before the student begins experimentation**. Students must adhere to all federal, state and local laws when acquiring and handling controlled substances. Only under the direction of a qualified scientist or designated supervisor may a student use federally controlled or experimental substances for therapy or experimentation. Students under 21 may not handle or purchase smokeless powder or black powder for science projects.

Hazardous Substances or Devices (Chemicals, Firearms, Welders, Lasers, Radioactive Substances, Radiation)

Students must adhere to federal and state regulations governing hazardous substances or devices. An adult must directly supervise experiments. Students working with hazardous substances or devices must follow proper safety procedures for each chemical or device used in the research.

Potentially Hazardous Biological Agents

(Bacteria, Mold, Fungi, Viruses, Parasites, Recombinant DNA (rDNA), Human or Animal fresh tissues, blood or body fluids, etc)

All projects involving potentially hazardous biological agents must be **reviewed** and **approved** by two science teachers and a biomedical scientist **before the student begins experimentation**. It is the responsibility of the student and the adults involved with the project to conduct a risk assessment. Risk assessment defines the potential level of harm, injury or disease to plants, animals and humans that may occur when working with biological agents. Risk assessment involves:

1. Assignment of the biological agent to a biosafety level risk group. **Students in grades 5-8 may only conduct research with biological agents determined to be at Biosafety Level 1 (BSL-1)**. BSL-1 agents pose low risk to students or the environment and are highly unlikely to cause disease in healthy people, animals or plants. Examples of BSL-1 Microorganisms include: *Agrobacterium radiobacter*, *Aspergillus niger*, *Bacillus thuringiensis*, *Escherichia coli strain K12*, *Lactobacillus acidophilus*, *Micrococcus leuteus*, *Neurospora crassa*, *Pseudomonas fluorescens*, and *Serratia marcescens*. **Studies involving unknown microorganisms can be determined BSL-1 if the organism is collected in a plastic Petri dish or other non-breakable container and is sealed and remains sealed during the entire experiment**. Examples of BSL-1 rDNA studies include: Cloning of DNA in *E. coli K12*, *S. cerevisiae*, and *B. subtilis* host vector systems. Examples of BSL-1 Tissue studies involve the collection of non-infectious fresh tissues (not including blood or blood products) with little likelihood of microorganisms present. Projects involving blood or blood products are considered Biosafety Level 2. Plant tissues, established cell lines and cultures, meat from food stores or restaurants or packing houses, hair, teeth that have been sterilized, and fossilized tissue do not need to be treated as potentially hazardous biological agents.
2. Determine the level of biological containment available to the student researcher. **Biosafety Level 1 projects can be performed in a school laboratory but are prohibited in the home environment**. Standard microbiological practices must be used and all hazardous agents must be properly disposed of at the end of experimentation. The experiment must be supervised by a qualified scientist or a trained designated supervisor.

*For a complete list of rules regarding all of the subjects listed above please visit the following website:

<http://www.sciserv.org/isef/rules/isefrule.asp>

If your science fair project will include any of the subjects listed above, you must receive approval before you begin experimentation and obtain the signatures of those approving your project.

Science Teacher Approval

Date

Science Teacher Approval

Date

Other (doctor, biomedical scientist, etc)

Date

SCIENCE FAIR PROJECT RESEARCH PLAN

My Question: _____

Books or articles I have read about my topic.

1. _____
2. _____
3. _____

My Hypothesis:

The supplies I will need for my experiment are:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Procedure

(Please write a detailed explanation about what you plan to do for your experiment):

Use another sheet of paper if necessary.

Display and Safety Rules – The Following Items Cannot be Displayed at the Science Fair

1. Living Organisms
2. Plant materials (living, dead or preserved)
3. Taxidermy specimens or parts
4. Preserved animals – includes embryos
5. Human or animal food
6. Human or animal parts or body fluids
7. Soil, sand or waste samples
8. Laboratory/household chemicals – including water
9. Poisons, drugs, hazardous substances or devices
10. Sharp items – pipettes, glass, syringes, needles
11. Dry ice or other sublimating solids
12. Flames or highly flammable display materials
13. Empty tanks that previously contained combustible liquids or gases
14. Batteries with open top cells
15. Photographs of people other than yourself or your family without their written permission.
16. Photographs or other visual presentations depicting vertebrate animals in surgical techniques, dissection, necropsies, other lab techniques, improper handling methods, improper housing conditions etc.

The Salt Lake Valley Science & Engineering Fair, and Granite School District reserve the right to remove anything else displayed with your science fair project that may be deemed hazardous or inappropriate for public display.

Student & Parent/Guardian Signatures

I certify that my science project complies with all of the experimental rules of the Granite and Salt Lake Valley Science and Engineering Fair. I have also read and I understand the display and safety rules. If I display any of the items listed above, I am aware that they will be removed and returned at the conclusion of the science fair. I agree to set up my project on the appointed day prior to my competition and I will leave my project on display until the conclusion of the awards ceremony.

Signature of Student _____ Date _____

If this is a team project, each additional team member must sign below.

Signature of Student _____ Date _____

Signature of Student _____ Date _____

I give my permission to allow appropriate information about my child to be used for publicity purposes. This includes photographs submitted by me or my child as well as any photographs, videos or likenesses that by be used by Granite School District, the Salt Lake Valley Science & Engineering Fair, the Utah Science Center, The Leonardo, or the sponsors of awards for the purposes of illustration, advertising or publication in any manner. I also consent to the use of my child's name in connection therewith.

Signature of Parent/Guardian _____ Date _____

If this is a team project, each additional team member's Parent/Guardian must sign below.

Signature of Parent/Guardian _____ Date _____

Signature of Parent/Guardian _____ Date _____

Teacher Signature

I have reviewed and approved this student's research plan **prior** to experimentation and certify that they will comply with all of the experimental rules of the Salt Lake Valley Science & Engineering Fair.

Teacher Signature _____ Date _____

SLVSEF Approval for Competition

Regional SRC Approval

Date

Every effort will be made to protect exhibits from loss or damage. However, since the exhibition of projects is open to the public, the SLVSEF Committee and University of Utah cannot and will not accept any liability or responsibility of any nature for any theft, loss or damage to any exhibit or any other property of any SLVSEF participant. Accordingly, it is recommended that each participant secure and guard his/her project and take all prudent precautions to prevent any theft, loss or damage to their project.

For more information please visit our website www.utahsciencecenter.org/sciencefair

The Salt Lake Valley Science & Engineering Fair is presented by the Utah Science Center and the University of Utah.

Regulations for Animal Experimentation

Student projects that use living organisms (excluding plants) must follow these guidelines:

1. Experimentation on living organisms will only be conducted on lower-order life forms, such as bacteria*, fungi**, protozoans and insects.
2. Vertebrate animals are NOT to be used in a science fair project with the following exceptions:
 - a. Observation of normal living patterns of pets, fish or domesticated animals. Normal behavioral studies may be carried out, but project must be carefully selected so neither physiological or psychological harm result
 - b. Observation of normal living patterns of wild animals in a free-living state or in zoological parks, gardens or aquariums
 - c. Living vertebrate animals will not be allowed in the display of the project.
 - d. Cells, tissues, or organs may be purchased from a biological supply company or research facility.

Regulations for Human Experimentation

1. Experimentation on humans must conform to the same regulations as other animals. Human studies (including surveys, taste testing, and physical exertion) **must have prior approval** from the mentor teacher or district science specialist **and permission slips signed** by the participant and the parent/guardian.

*Pathogenic bacteria experimentation is prohibited. Other bacteria experiments must have sealed Petri dishes. As part of the project, the student should have a plan for disposal. Bacteria may not be grown outside a BSL Level 1 or 2 lab (not at home or elementary classroom)

**Fungi must be contained in a sealed container as part of the project, a plan for disposal must be included in the project.

Form for Projects Using Human Subjects

Form for projects for students Grades 5-8th

Student's Name

Title of Project

Team-member name

Team-member name

What is the purpose of your study?

What will you ask people to do in your study?

If you are using a questionnaire or survey, attach a copy to this page.

Both Teacher and building administrator will act as the Institutional Review Board.
To be completed by the Institutional Review Board prior to experimentation.

MINIMAL RISK INVOLVED - Student may proceed with project following the IRB recommendations

MORE THAN MINIMAL RISK - Student must receive additional guidance from the IRB.

IRB Chair

Signature

Title

Date

Form for Projects Using Vertebrate Animals
Form for projects Grades 5-8th

Student's Name

Title of Project

What is the purpose of your study?

What is your experimental plan?

How will you assure that no harm will occur to the animals you will be working with?

Both Teacher and building administrator will act as the Institutional Review Board.
To be completed by Institutional Review Board prior to experimentation.

MINIMAL RISK INVOLVED - Student may proceed with project following the IRB recommendations

MORE THAN MINIMAL RISK - Student must receive additional guidance from the IRB.

IRB Chair

Signature

Title

Date

Form for Projects Using Pathogens For Projects in Grades 5-8th

Student projects that engage in the growing of the following: Bacteria, Viruses, Protozoa, Fungi or Parasites must fill out this form.

Student's Name

Title of Project

What is the purpose of your study?

What is your experimental plan?

How, specifically, will you guard against excess exposure to the pathogens?

Both Teacher and building administrator will act as the Institutional Review Board.
To be completed by Institutional Review Board prior to experimentation.

- MINIMAL RISK INVOLVED - Student may proceed with project following the IRB recommendations
- MORE THAN MINIMAL RISK - Student must receive additional guidance from IRB chair.

IRB Chair

Signature

Title

Date