



LEONARD GELFAND
STEM CENTER

Gelfand Science, Engineering, and Maker Fair Program

APPLICATION PACKAGE

Program Overview

Thank you for your interest in the Gelfand Fair program at Case Western Reserve University. In addition to continuing our support for science and engineering fairs, we are pleased to include support for school-based maker fairs. The maker approach infuses engineering and technology with creativity and ingenuity and provides opportunities for students to be makers rather than consumers.

The goals of the Gelfand Fair program are to increase student participation in and raise the quality of school science, engineering, and maker fairs. All public, private, charter, and parochial schools in Cuyahoga, Lorain, Medina, Summit, Lake, Geauga, and Ashtabula counties are eligible to apply with priority given to schools in those districts designated as “high-needs” by the Ohio Department of Education.

Funded by the Gelfand Engineering and Technology Education Fund, teachers may request up to \$1,000 to support a fair in their school. Applicants proposing fairs with 20-50 students may request up to \$500, those proposing fairs with 51-75 students may request up to \$750, and those proposing fairs with more than 75 participants may request up to \$1000.

Expectations

- Gelfand awardees are expected to hold their school fair by May 6, 2016.
- Gelfand awardees must fully participate in program assessment. This will include each student completing a short Experimental Design Aptitude Test and attitude survey, both pre and post.
- Gelfand awardees must complete a brief report on the outcomes of your school fair including an itemized list of expenditures. This information is used to document the impact of the program. Reports must be submitted by May 27, 2016.

Distribution of funds

Funds are held by Case Western Reserve University. Teachers may elect to purchase approved materials and submit receipts to CWRU for reimbursement. To minimize out of pocket expenses, it is recommended teachers order supplies through CWRU and have them delivered directly to their school.

Program Components

Gelfand Fellows

A limited number of Gelfand Science and Engineering Fellows are available to mentor your students as they plan, prepare, implement, and present their projects. Gelfand Fellows are CWRU undergraduate and graduate students trained to work with K-12 students in project development, experimental design, data analysis, and data presentation. All Gelfand Fellows have passed both BCI and FBI background checks and have successfully completed a 9-hour training program that provides tools and strategies for working with students at every stage of the project process.

Only high needs schools in Cuyahoga County are eligible to apply for Gelfand Fellows. Check the box in item 11 on the application if you would like to have Gelfand Fellows work with your students.

Equipment Loan

The Gelfand Equipment Loan Program is intended to provide tools students can use to complete science fair projects. A variety of basic laboratory equipment (balances, thermometers, water baths, glassware, etc.), probeware, and other materials are available. Inquire for details.

Institute for Collaboration and Innovation: think[box]

Think[box] is CWRU's new invention center that provides a space for anyone to tinker and creatively invent. Combining the latest in digital technology (3D-printers, laser and vinyl cutters, circuit board router, large format printer, the fanciest sewing machine you are ever likely to encounter), with traditional shop tools, think[box] is a one of kind fabrication space. Inquire for details to access think[box].

5th Annual Gelfand Expo

On May 19, 2016, CWRU will host the 5th Annual Gelfand Expo. The Expo will be an opportunity for select students in grades 4-6 to work with experienced researchers to discuss the project development process.

Completed and signed applications should be submitted at least 6 weeks prior to the planned fair date. Grant proposals will be reviewed in the order they are received and decisions communicated within ten business days of receipt. It is anticipated 10-15 awards will be made in 2015-2016, depending on availability of funds.

Completed applications may be returned by

1. MAIL : Jim Bader
Leonard Gelfand STEM Center
Case Western Reserve University
10900 Euclid Avenue,
Cleveland, Ohio 44106-7158
2. FAX : (216) 368-5465
3. EMAIL : gelfandsciencefair@case.edu

If you have any question about the application or the program, please contact: Jim Bader at (216) 368-5289 or by email at gelfandsciencefair@case.edu.

Complete and return pages 3-7 to apply.

Gelfand Science, Engineering, and Maker Fair Program

Grant Application

Applications are due at least 6 weeks prior to planned fair date

We will be holding a: science fair engineering fair maker fair
(check all that apply)

I. Applicant Information

1. Applicant Information

Name _____

Email Address _____

Grade Level _____

Telephone _____

(please list a number where you can be reached during the day)

2. Co-Applicant Information (if more than one teacher is involved in this application)

Name _____

Email Address _____

Grade Level _____

3. School Principal Information

Name _____

Email Address _____

4. School Information

School Name / District _____

Address _____

Telephone _____ School Fax _____

II. Your Past Experience

5. Has anyone run a science or maker fair at your school in the past? Yes No

What year was the most recent fair? _____

How many students were involved? _____

6. Have students at your school participated in a district, regional, or state fair in the past?

Yes No

7. If you answered *no* to question 6, skip questions 7 and 8. If you answered *yes* to question 6, please complete the following:

- a. Which fair did your students attend and when? Check all that apply.

District fair Most recent year _____

NEOSEF Most recent year _____

Buckeye Most recent year _____

Other Most recent year _____

- b. How many students participated? Check all that apply.

District fair Number of students _____

NEOSEF Number of students _____

Buckeye Number of students _____

Other Number of students _____

8. Do you feel that your experience at the district /regional/state fair was successful? Why? Why not? What could have been done differently that would have made the experience better?

III. Plans for This Year

9. Describe how you will develop and implement your school fair this year:
 - a. What grade levels will participate in your school fair?
 - b. Will student participation be voluntary or a class requirement?
 - c. When is the deadline for students to select their project idea?
 - d. What are the start and end dates for experimentation?
 - e. How much time (if any) will be provided for students to work on their projects during class?
 - f. Where at the school will your fair be held?
 - g. What is the date of your fair?
 - h. What criteria will you use to judge the projects?
 - i. Who will judge the projects and select the winners?
 - j. How many winners (1st, 2nd, etc.) will you select?

10. Estimate your expenses for the fair program at your school. Please remember the primary purpose of this funding is to purchase materials and equipment necessary for students to conduct high quality projects. The Gelfand program will provide up to 100 display boards for your school. If you need more than 100 boards, you can include the additional boards in your budget, but additional boards or other materials necessary for putting boards together may be no more than 15% of the total budget. Awards and recognitions (ribbons, certificates, etc.) may be no more than 10% of the total budget and refreshments for judges may be no more than 5% of your total budget. Items which should not be purchased with grant funds include meals for students or anything which is not an essential part of conducting and presenting a high quality investigation.

Note: Grant Awards will be limited to a maximum of \$1,000. Applicants proposing fairs with 20-50 students may request up to \$500. Those proposing fairs with 51-75 students may request up to \$750, and those proposing fairs with more than 75 participants may request up to \$1000.

Category	Estimated Cost

Total amount of funding requested : \$ _____

Total number of students who will participate _____

11. I teach at a school in a high needs district in Cuyahoga County as defined by the Ohio Department of Education and would like Gelfand Fellows to mentor my students as they plan, prepare, execute, and present their projects.

Yes No

My signature certifies that I have reviewed this grant application to the Gelfand Program and am in full support of the applicant(s) efforts to develop and implement a Science or Maker Fair as described above. I further acknowledge that if this grant application is funded, expended funds will be used for eligible expenses as described in the application guidelines. If the Fair is not fully implemented, my school will be required to refund awarded moneys to the Gelfand Program.

Applicant _____ Date _____

Co-Applicant _____ Date _____

Principal _____ Date _____

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