



Science Fair Information Packet

2019

Important Dates

Registration Begins

Monday,
January 7, 2019

Registration Ends

Thursday,
January 17, 2019

Science Fair

Thursday,
January 24, 2019

Set up: 6:30 pm
Viewing: 7:00-8:00 pm

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The 13th Annual Forest Glen Science Fair will be held on Thursday evening, **January 24, 2019**, from **7:00—8:00 pm**. All students (grades K through 5) are welcome to participate. The purpose of the fair is to introduce students to the world of science and provide them an organized opportunity to use the scientific method and make discoveries of their own. Informal interviews will be conducted for each entrant by volunteer teachers and expert parent scientists! No judging!

This packet is intended to provide our young scientists with the what, where, when and how information necessary to safely participate in the 13th annual Forest Glen Science Fair. **HAVE FUN!**

Call for Submissions

Registration can be completed using the form on page 6 or accessing a form on the Forest Glen PTA website (www.forestglenpta.org) by clicking the science fair link. Completed registration forms can be mailed to a science fair committee chair (Michelle Applebee, applebeeroberts@gmail.com) or printed and returned to your child’s classroom teacher.

Registration forms can be submitted starting on January 7, 2019.

Registration closes **Thursday, January 17, 2019.**

Rules

- Open to all students from grades K—5.
- Maximum of TWO students per entry unless entrants are from the same family.
- No judging—just share what you have learned with friends, parents and teachers.

Have FUN!
Be SAFE!
START EARLY.

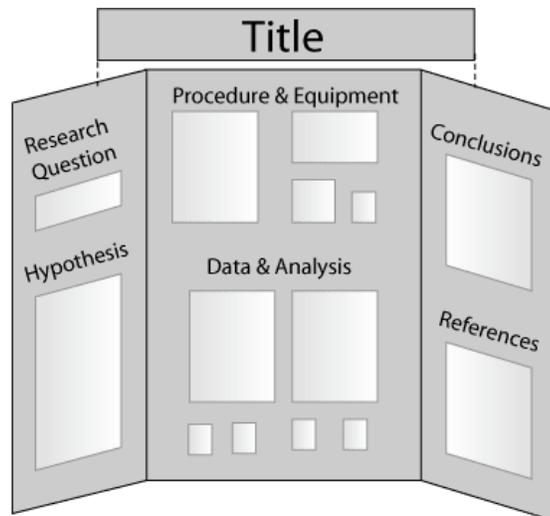
All participants will be registered for a random drawing for a cool science related prize.



Project Displays

Your display should be self-supporting and designed to fit on a table. The display should give the title and be designed to explain your project. Be creative in your display!! Your display should...

- ◆ Be able to stand-alone. Possible materials may include heavy cardboard, display board (from an art store), masonite, etc.
- ◆ Be neat and use correct spelling and grammar. Title of project should stand out.
- ◆ Be colorful and attractive with an accurate title.
- ◆ Have typed or lettered explanations on plain paper. Include supporting graphs, data tables, photos, drawings and/or charts.
- ◆ Include materials you used to do the experiment.
- ◆ Help you answer questions and provide your visitors with interesting facts.



Types of Displays

There are three types of projects a young scientist can submit to the fair. The project types include....

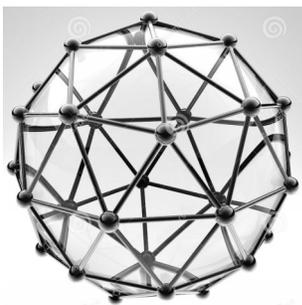
Scientific Display

A scientific display can consist of any collection of similar articles that are related. Examples include leaves, screws, plants, etc. This project type may best-suited towards our youngest scientists.



Demonstration or Model

A demonstration illustrates a scientific principle, for example, showing how water moves through plants using food coloring and white carnations. A model can consist of (a) drawing(s) of what you propose to model and the actual model itself. Examples can include solar system models or volcano models supported by information boards.



Experiment

An experiment uses the "scientific method" as the basis for the project. A five-step process enables the scientist to identify a problem, collect information, develop a hypothesis (if/then statement), conduct the necessary testing and finally, draw a conclusion. An example could include comparing rates of plant growth using different fertilizers.



Safety Guidelines

Be SAFE! Acquire and wear appropriate safety equipment while performing your project...



Always CHECK with an ADULT before EXPERIMENTING!

Display safety

Chemical and Glassware Hazards

- ◆ For display purposes, glassware must be safely mounted.
- ◆ Chemicals may not be used in displays; use colored water or photographs instead.

Electrical and Mechanical Hazards

- ◆ Any projects requiring a power source must use alkaline batteries.

Fire and Radiation Hazards

- ◆ No open or contained fires of any kind allowed.
- ◆ No explosives, fuels, poisonous materials or aerosol cans are to be displayed.
- ◆ Radiation projects must not be dangerous. Ask a specialist in the field to check your idea.
- ◆ Ultraviolet light may not be used in displays: use photographs or drawings with labels depicting ultraviolet light instead
- ◆ No boxes, etc. under your exhibit table.

Biological Hazards

- ◆ No living vertebrate (backbone) animals may be displayed.
- ◆ No hypodermic needles and syringes may be displayed.
- ◆ Molds and bacteria that are unknown or dangerous to humans shall not be displayed. Use photos.
- ◆ You may display, sealed in petri dishes, harmless molds and bacteria you obtained from a supply house or other place where they were identified

Science is closer than you think...

Remember, there are many household items you can use for your projects including brother and sisters, parents and grandparents, house plants, tap water, fruit, sugar, playdough, etc

Each of these project types requires scientific thought, research and discipline and most likely some assistance from a senior scientist. We encourage our young scientists to develop ideas and investigations but never to hesitate in asking for assistance, especially when it comes to safety!!!

Scientific Method

If you choose to do an experiment for your science project, you will need to use the scientific method. Follow the steps below and you won't have any problems.

Identify a problem.

What do you want to find out? Think about an area of science that interests you. Narrow it down to a project question. The question should be specific and should identify a variable (something you will change/vary) that will help you find your answer.

Collect information.

Research your topic. Visit the LLC and the public library. Get information from the Internet, being sure to evaluate your sources carefully. Visit a museum or take another field trip. Ask an expert in the subject.

Develop a hypothesis.

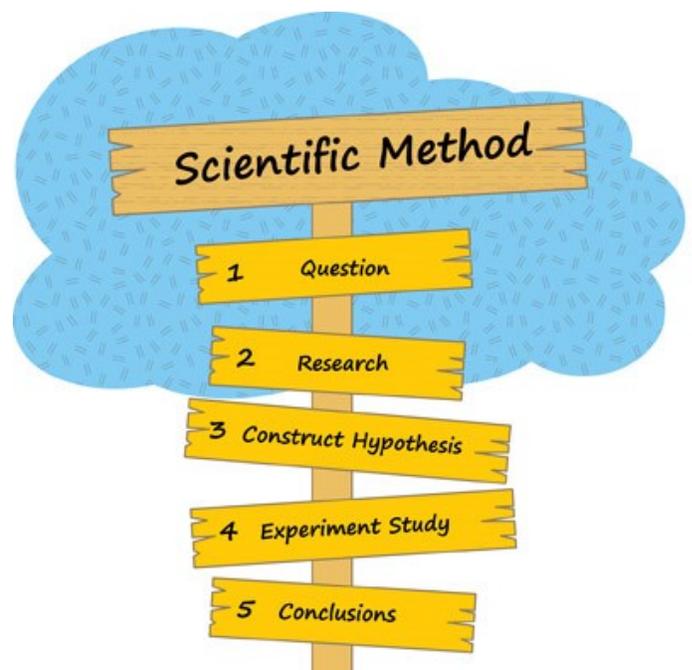
What is your guess about what the answer will be? What do you think will happen? Use your research—remember, a hypothesis is an educated guess. Write a hypothesis that answers the question.

Conduct an experiment.

First make a list of materials you need and gather them. Identify your variable (something that changes), making sure you are only changing one thing. Change or vary something that will help you answer your question. All other conditions must remain constant in order to have a “control” or reference point for comparison. This allows you to see what affect the variable has. Set up your experiment and observe what happens. Record everything you do. Keep a journal of your observations to record changes, growth, measurements or other results. Record your results neatly so you can use the information later.

Analyze and Draw a conclusion.

Analyze your results and draw a conclusion based on your results. Was your hypothesis correct? Why or why not? Your conclusion should tell what you learned by conducting the experiment. Remember, an experiment is not a failure if the hypothesis is proven wrong.



Resources

Don't know where to start or what to study? Check out the resources below

New to science fairs? Check out

http://www.eduplace.com/science/profdev/science_fair/

Here you will find a description of the entire science fair experience including timeline and possible project ideas.

Education.com has science fair ideas searchable by grade level.

<https://www.education.com/science-fair/>

Our own Glen Ellyn Public Library is a great resource! Go there or visit online at <https://gepl.org>

Kidsites has links to other websites about science. Review sites and use them to come up with your science project idea.

<http://www.kidsites.com/sites-edu/science.htm>

More ideas and advice can also be found at

<http://www.sciencebuddies.org/>

Or just let your child think up their own project!

Science can be creative and fun, let them explore and experiment.





13th Annual Science Fair
January 24, 2019 7—8 pm

Demonstrate a Scientific Principle or Build a Model

*What keeps polar bears warm?
Dancing Raisins, how can raisins float?
Build a model of a plane or machine.*

Scientific Display

*How are materials recycled?
Describe different rock materials.
How do birds and airplanes fly?*

Perform an Experiment

*What band-aids have the most waterproof adhesive?
What type of soap is best at getting out stains?*

All participants to be entered into a random drawing for a science prize!

Prizes will be announced the morning of the fair and awarded at check-in.

- * Open to all students in grades K-5.
- * No judging - just share what you have learned and have fun.
- * Maximum of 2 students per entry unless within the same family.

Not ready to participate? You can still support our budding scientists by attending the science fair to view the displays

Questions can be addressed to Michelle Applebee at applebeeroberts@gmail.com or 630/698-0656

Please complete the form below and return it to school by January 17, 2019

Forest Glen Science Fair Registration Form - Due January 17, 2019

Name: _____ Teacher / Grade: _____

I will enter a Display Demonstration / Model Experiment Unsure

Title of project (if known): _____

My child, _____ has my permission to enter the Forest Glen Science Fair

Parent Signature _____ Printed name _____

Phone _____ Parent e-mail _____

Parents, I am willing to serve as a project reviewer: on the night of the science fair? Yes No

I have multiple children presenting and would like their stations next to each other? Yes No