Long Island Math Fair Deadlines

*All documents must be either dropped off or emailed to Ms. LaGattuta in the Math Office (Room 207) and Ms. O’Donnell (Room 222) by the end of the day for the dates listed below.

December 5, 2016
- **Rough draft** of paper which includes the Cover Page and Statement of the Specific Topic.
  - **Background/Introduction**: 3-4 pages.
    - a. Provide enough information to familiarize the reader with the examples and applications that will follow. Use internal citations!!
    - b. Provide the source of your idea and why you find it interesting or provide the **Rationale**.
    - c. The goal of the study - once introduced, discuss the particular aspect on which your project will focus.

- **Work Cited Page** - Use easy bib/citation master/endnotes – include journal articles, books, web pages and email correspondence with experts. By the conclusion of the project a minimum of 10 sources must be provided.

December 12, 2016
- Forms A-1 (Application form for Independent Entries), D (Report Cover Sheet) and Field Trip Consent Form (all attached).
- **Revised Draft** of previous submission + **Application**: Provide a sample problem or application of the concept that you found in your review of literature.

December 19, 2016
- **Revised Draft** of previous submission + “**What if**” component statement followed by sample problem or application.

January 4, 5 and 6, 2016
- Ms. LaGattuta will be available for feedback on the draft of your paper in the Math Office, (Room 207). Please set up an appointment via email in advance for feedback.

January 9
- **Add** Further Research/Conclusion + Abstract + Turnitin Report
- Submit papers into turnitin.com. Class ID: 14049415, Password: mathfair. Attach a copy of the “report” to each copy of your paper.

January 13, 2017 – Please deliver color copies to Ms. Levine in the main office

January 23, 2017 ***Only for Independent Research Students***

**TOSHIBA:** Online Registration + Sample Toshiba Web Pages; Team members must draw three sample web pages that communicate and promote their future technology vision. Web pages may be hand-drawn or computer-generated (e.g., PowerPoint) and may include text, pictures, photographs and diagrams. They should relate to material presented in the written description and **illustrate** the attributes of the chosen technology. NO webpage should ever contain ONLY WORDS!! One web page should be devoted to a model or visual representation of the technology that could be used to create a prototype for display. The model should help others visualize the design and communicate design features. Include a description of limitations of the model. **No need to create an actual website or a prototype until a team becomes a Regional winner.**

**Toshiba Submission Day is February 2, 2017.**
February 6, 2017
- Initial PowerPoint submission to be e-mailed to glagattuta@pobschools.org AND MOdonnell@pobschools.org

February 27-Mar 3
- Final PowerPoint presentation practice during your Research period or a scheduled appointment.

March 10, 2017
- Long Island Math Fair Presentation at Hofstra University (3:00 pm-6:00 pm).
- Bus leaves at the beginning of 9th period.

April 28, 2017
- Final Long Island Math Fair Presentation at Hofstra University (3:00 pm-7:00 pm) by invitation only.
- Bus leaves at the beginning of 9th period.

IF YOU DO NOT MEET THESE DEADLINES, YOUR APPLICATION WILL NOT BE SUBMITTED TO THE LONG ISLAND MATH FAIR.

Paper Format

Cover page (Form D)

Abstract: (separate page) -150-word summary
A short summary of what the reader can expect to find.
It is a summary, NOT an introduction.

Background/Introduction
Once the topic is introduced, what particular aspect of the topic does your project focus on? Expand on this in detail.

Application from Literature
Provide a sample problem or application of the concept that you found during your review of literature

The “What IF” component – Original material
How will you expand on this topic? What variable will you manipulate?
How does this change the results? This is the hardest part.

Conclusion or “For Further Research”
What possible new directions can this research take?
It should follow directly from the body of the paper and be somewhat concrete.

Works Cited Page
Use easy bib or endnotes-must include a minimum of 10 sources, including journal articles, books and web pages.
MATH FAIR COMMITTEE STATEMENT

To students planning to enter the LI Math Fair and the Parents/Teachers of those students:

The Math Fair is significantly different from your other math experiences, such as Mathletes, in at least two respects. First, you will investigate a project for months, develop your own ideas about the topic and present them orally. In math class or Mathletes, the time span for a problem is minutes, not months. The LI Math Fair gives you the opportunity to develop your "math power" - the ability to investigate one topic and then to stand before a group of judges, peers and parents and defend your work. However, the second and major difference is the element of subjectivity and luck involved in the LI Math Fair. This occurs when you are placed in a room in the Preliminary and Final Rounds.

In the Preliminary Round, some rooms will have one or two winners and others will have three or four winners. You may be placed by the luck of the draw in a room of excellent papers. Had you been in another room, you might have won. The evaluation of your presentation and paper is subjective. To reduce this subjectivity, the LI Math Fair will be sending your paper to the judges before the Preliminary Round. **Please be aware that you must meet the following deadlines to enter the Fair this year: Your final paper must be submitted to Ms. LaGattuta (Room 207) postmarked by January 18, 2017.**

Some Tips and a Warning:
In the Preliminary Round, the judges will have had your paper for about two weeks. Your presentation on your paper is still the key to winning. Practice it as often as you can. Have note cards to help with the presentation, but don't read your paper to the judges. Talk to them about the significant parts of the paper. Good homemade visuals always help.

Warning: We will disqualify you for plagiarism, and no medal will be awarded even if you won at the Preliminary Round. Judges have been given web sites where they can verify whether or not the paper has been plagiarized. Moreover, your paper should have a bibliography and your footnotes should conform to your school's standards. Finally, you are required to sign on the application form that the paper has not been plagiarized.

The subjectivity of the Fair is difficult for students, parents, and teachers to accept. To balance this subjectivity, we have an outstanding group of judges, all volunteers. Most of the judges have many years of Math Fair experience. All have outstanding knowledge in mathematics. Most are teachers while others are engineers or other professionals in math related fields. The goal of all judges is to give you the best possible experience in the Math Fair. We hope you decide to enter the Fair - we believe it is a very unique, worthwhile activity and one which will help you improve mathematically.
What is Plagiarism?

Many people think of plagiarism as copying another's work, or borrowing someone else's original ideas. But terms like "copying" and "borrowing" can disguise the seriousness of the offense:

According to the Merriam-Webster Online Dictionary, to "plagiarize" means
  - to steal and pass off (the ideas or words of another) as one's own
  - to use (another's production) without crediting the source
  - to commit literary theft
  - to present as new and original an idea or product derived from an existing source.
In other words, plagiarism is an act of fraud. It involves both stealing someone else's work and lying about it afterward.

But can words and ideas really be stolen?
According to U.S. law, the answer is yes. The expression of original ideas is considered intellectual property, and is protected by copyright laws, just like original inventions. Almost all forms of expression fall under copyright protection as long as they are recorded in some way (such as a book or a computer file).

All of the following are considered plagiarism:
  - turning in someone else's work as your own
  - copying words or ideas from someone else without giving credit
  - failing to put a quotation in quotation marks
  - giving incorrect information about the source of a quotation
  - changing words but copying the sentence structure of a source without giving credit
  - copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not (see our section on "fair use" rules)

Most cases of plagiarism can be avoided, however, by citing sources. Simply acknowledging that certain material has been borrowed, and providing your audience with the information necessary to find that source, is usually enough to prevent plagiarism. See our section on citation for more information on how to cite sources properly.

What is a citation?
A "citation" is the way you tell your readers that certain material in your work came from another source. It also gives your readers the information necessary to find that source again, including:
  1. information about the author
  2. the title of the work
  3. the name and location of the company that published your copy of the source
  4. the date your copy was published
  5. the page numbers of the material you are borrowing
Why should I cite sources?
Giving credit to the original author by citing sources is the only way to use other people's work without plagiarizing. But there are a number of other reasons to cite sources:

1. citations are extremely helpful to anyone who wants to find out more about your ideas and where they came from.
2. not all sources are good or right -- your own ideas may often be more accurate or interesting than those of your sources. Proper citation will keep you from taking the rap for someone else's bad ideas.
3. citing sources shows the amount of research you've done.
4. citing sources strengthens your work by lending outside support to your ideas.

Doesn't citing sources make my work seem less original?
Not at all. On the contrary, citing sources actually helps your reader distinguish your ideas from those of your sources. This will actually emphasize the originality of your own work.

When do I need to cite?
Whenever you borrow words or ideas, you need to acknowledge their source. The following situations almost always require citation:

1. whenever you use quotes
2. whenever you paraphrase
3. whenever you use an idea that someone else has already expressed
4. whenever you make specific reference to the work of another
5. whenever someone else's work has been critical in developing your own ideas.

Helpful Hints for Presentations
1. Use Math word processor – looks more professional
2. Visuals- neat and well-organized and clearly visible
3. Don’t read
4. 15 minutes- know the math as it refers to the topic and show your enthusiasm presenting it.
5. Be prepared for questions on any part of your paper.
6. On upper grade levels a paper that is no more than an outline of a textbook chapter will probably not win.
7. Dress appropriately
8. Practice presentation as often as you can and at least once with your mentor.
Possible Math Fair Topics

4th Dimension
Abacus
Adventure Game
Area Under a Curve
Astronomy & Mathematics
Attendance Program
Battleship
Binary System
Binomial Theorem
Boolean Algebra Computer Simulation
Business Management
Catalan Numbers
Checkbook
Chinese Remainder Theorem
Codes & Ciphers
Complex & Imaginary Numbers
Computer Abacus
Computer Football
Computer Graphics
Computer Simulation
Conic Sections
Curved Lines
Determinants
Differential Calculus
Diophantine Equations
Famous Mathematicians
Fibonacci Numbers
Fibonacci Sequences
Finger Math
Flow Charts
Four Color Map Problem
Fractal Geometry
Fractions
Game Theory
Golden Rectangle
Graph & Graphing
History of Numbers
Infinity
Integers
Integral Calculus
Kepler’s Laws
Lenses Golden Ratio
Linear Equations
Lissajous Curves
Logarithms
Logic
Logic & Truth Tables
Magic Square
Mastermind
Math & Music
Matrices
Matrix Algebra
Mendel’s Law
Metric System
Mobius Strip
Modular Numbers
Non-Euclidean Geometry
Number Madness
Optical Illusions
Pascal’s Triangle
Permutations
Pi
Pictures
Platonic Solids
Polygons
Polyhedral
Polynomials
Prime Numbers
Probability in Genetics
Probability with Dice
Pyramids
Pythagorean Theorem
Quaternions
Rational Number Bases
Relativity
Rotation of Axis
Rubik’s Cube
Sets
Sine, Cosine, Tangent
Slide Rule
Spirals
Squares & Square Roots
Statistics
Telephone Book
Tessellations
The Simplex Method
Topology
Trachtenberg Speed System
Trigonometry
Trisecting the Angle
Venn Diagrams
Zeno’s Paradox
To be completed by student. This must be attached to each of the three copies of your paper. All papers must be STAPLED (not bound) to this cover sheet.

STUDENT'S NAME __________________ / __________________
                        (Last Name)                   (First Name)

(OR)

TEAM MEMBERS' NAMES:  (Last Name)                        (First Name)
                      / __________________
                      / __________________
                      / __________________

GRADE LEVEL __________

TITLE OF PAPER __________________________________________

SCHOOL ________________________________________________

The Math Fair receives many requests from judges for copies of student's papers. We do not release the papers without your permission. PLEASE INDICATE HERE IF WE CAN RELEASE YOUR PAPER. YES ______ NO ______

Remember: Please bring a postcard addressed to your teacher to the Preliminary Round to give to the judges, as most will write you with comments.

SPONSORING TEACHER'S NAME ______________________________

Report will be reviewed.

Presentation will be reviewed.

PLAGIARISM: Paper documentation (bibliography, footnotes) will be reviewed.

GRADE 11: submit your TurnItIn.com report attached to each copy of your paper
2017 AL KALFUS LONG ISLAND MATH FAIR
(FORM A-1) APPLICATION FORM FOR INDIVIDUAL ENTRIES

To the Student: Please make sure you circle the grade level you wish to participate in, and the Preliminary Round you will attend. Note: Students may attend either of the Preliminary Rounds of the Fair—that is Nassau students may go to the Suffolk Round (3/3—Suffolk Community College) and Suffolk students may go to the Nassau Round (3/10-Hofstra). Please discuss this with parents/teachers. The Math Fair Committee hopes you find this year’s Fair to be enjoyable and a worthwhile experience.

Please PRINT or TYPE the following information clearly:

NAME OF SCHOOL __________________________________________

NAME OF STUDENT ___________________________ / ___________________________

(LAST NAME) (FIRST NAME)

STUDENT CELL PHONE ___________________________ HOME PHONE ___________________________

TOPIC __________________________________________

Circle GRADE LEVEL:  7  8  9  10  11  12  (Final round only)

Circle Preliminary Round:  Nassau (3/10-Hofstra)  Suffolk (3/3-Suffolk Community College)

Permission to participate in 2017 Long Island Math Fair:
(Please note: While we acknowledge subjectivity in the Fair, by signing below, all parents, students, and teachers accept the decision of the judges as FINAL! Student signature attests to the fact that the paper, or any part of the paper, has NOT been plagiarized.)

Sponsoring Teacher's Name (Please Print) __________________________________________

Sponsoring Teacher's Signature __________________________________________

Student's Signature __________________________________________

Parent or Guardian's Signature __________________________________________

*Must be signed by parent or guardian*
Plainview- Old Bethpage C.S.D.  
Field Trip Consent Form

Date this form was completed by parent/guardian:___________ Teacher: Ms. G. LaGattuta

(I give) (I do not give) my son/daughter______________________________________________
(Line out what does not apply)  
Student Name

Permission to participate in a field trip to: Long Island Math Fair-Hofstra University

The trip is scheduled to leave the school at approximately 1:45 pm on 3/10/17 and 4/28/17 and
return to the school at approximately 7:00 pm on both dates.

In accordance with school district policy students attending a field trip must abide by all school rules
and regulations and follow the directions of accompanying staff members and chaperones.

MEDICAL EMERGENCY INFORMATION

Parent/Guardian Name:__________________ Daytime Phone:___________________________

Evening Phone:_______________________ Cell Phone:_______________________________

Name of an Emergency Contact Person:________________________________________

Daytime Phone:____________ Evening Phone:_________Cell Phone:____________

Students Medical Insurance Carrier:___________________________________________

Policy Number________________________________________________________________

Does the student have any medical allergies? No_______ Yes________

If Yes, Please list:_______________________________________________________________

Does the student take any medications? No:____ Yes:____ (a doctor’s written orders must be
submitted to the nurse if the medication of amount differs from authorizations on file with the nurse.)

If Yes, please list:_______________________________________________________________

Signature of Parent/Guardian:___________________________________

Print Parent/Guardian’s name:___________________________________

**Deadline for submission of this form: December 12, 2017**