

2013 SCIENCE FAIR PROGRAM BOOK

Chicago Public Schools Student Science Fair, Inc. Presents the
63rd Annual Student Science Fair

STEM Meeting Global Needs Through Science • Technology • Engineering • Mathematics



Museum of Science and Industry, March 21 - 24, 2013
Symposium presentations March 21, 2013

www.cpsscifair.org



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Motorola is proud to support the Chicago Public Schools' Student Science Fair. We encourage students to use their imaginations to envision the impossible. Through the power of science and math, your creativity has no limits. **Your future begins today.**

ENVISION THE IMPOSSIBLE

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2013 Science Fair Program Book

63rd Annual Chicago Public Schools Student Science Fair

Meeting Global Needs

Through

Science • **T**echnology • **E**ngineering • **M**athematics

Brought to you by:

Chicago Public Schools Student Science Fair, Inc.

Academic Supporters:

Chicago Public Schools

Office of Pathways to College and Careers

Site Host:

Museum of Science and Industry

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www.cpsscifair.org

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Schedule of Events

Thursday, March 21, 2013 – Symposium – details on page 23

9:30 A.M. – 11:30 A.M.	Symposium Morning Sessions (e-Suite, two Classrooms)
11:30 A.M. – 12:45 P.M.	Symposium Luncheon (Columbian Room) - by invitation only
1:00 P.M. – 3:30 P.M.	Symposium Afternoon Sessions (e-Suite, two Classrooms)

Friday, March 22, 2013 – Exhibit Judging – details on page 27

7:30 A.M. – 8:30 A.M.	Judges Briefing and Breakfast (Auditorium)
8:30 A.M. – 12:00 NOON	Judging of Exhibits (West Pavilion Main Entrance)
11:00 A.M. – 11:30 A.M.	Opening Ceremony (West Pavilion Main Entrance)
11:30 A.M. – 12:00 NOON	Kicking off with a Bang and Exhibit Tour (West Pavilion)
11:30 A.M. – 1:30 P.M.	Judges Buffet Luncheon (Flight Balcony)
12:00 NOON – 1:00 P.M.	Recognition Luncheon (Columbian Room) - by invitation only
12:00 NOON – 1:00 P.M.	Judging Continues (West Pavilion)
1:00 P.M. – 3:15 P.M.	Science Fair Open to the Public (West Pavilion)

Saturday, March 23, 2013 – Public Viewing and Additional Events – details on page 43

9:00 A.M. – 11:45 A.M.	Sixth-Grade Regional Winners Tour of the Museum
9:30 A.M. – 3:15 P.M.	Science Fair Open to the Public (West Pavilion)
9:30 A.M. – 3:00 P.M.	International Science and Engineering Fair Judging (Auditorium)
11:45 A.M. – 1:00 P.M.	Sixth-Grade Regional Winners Luncheon (Columbian Room) – p. 43
2:00 P.M. – 3:00 P.M.	ComEd Science Club Social (Columbian Room) – by ticket only

Sunday, March 24, 2013 – Awards Convocation – details on page 45

11:00 A.M. - 12:00 NOON	Science Fair Open to the Public (West Pavilion).
1:00 P.M. – 3:00 P.M.	Awards Convocation (Auditorium) – by ticket only



Proclamation from the Mayor of the City of Chicago



OFFICE OF THE MAYOR CITY OF CHICAGO

RAHM EMANUEL
MAYOR

PROCLAMATION

WHEREAS, from March 21 through March 24, 2013, the Chicago Public Schools Student Science Fair, Inc. will sponsor the 63rd Annual Citywide Chicago Public Schools Student Science Fair for Chicago Public Schools' students which will be held at the Museum of Science and Industry; and

WHEREAS, the 2013 Student Science Fair follows the theme, *Meeting Global Needs through Science, Technology, Engineering and Mathematics*; and

WHEREAS, approximately 300 students from a total of 10,000 participants at the local school and area levels will be selected to exhibit their projects and symposium papers at the Museum of Science and Industry; and

WHEREAS, 70 of those students will be sent to the Illinois Junior Academy State Science Fair at the University of Illinois at Urbana-Champaign, and four will be sent to the International Science and Engineering Fair in Phoenix, Arizona; and

WHEREAS, students will compete in sixteen categories, including aerospace science, behavioral science, biochemistry, botany, chemistry, computer programming, earth science, electronics, engineering science, environmental science, health science, materials science, mathematics, microbiology, physics and zoology;

NOW, THEREFORE, I, RAHM EMANUEL, MAYOR OF THE CITY OF CHICAGO, do hereby proclaim March 21-24, 2013, to be CHICAGO PUBLIC SCHOOLS STUDENT SCIENCE FAIR DAYS IN CHICAGO, in recognition of the exceptional talents displayed by these students and in appreciation of the teacher sponsors and parents who have provided support and encouragement for these young scientists.

Dated this 31st day of December, 2012.


Mayor



2012 Opening Ceremony

On Friday, March 23rd, the 62nd Annual Chicago Public Schools Student Science Fair opened with corporate and CPS sponsors' greetings, accolades and words of encouragement for the student scientists at this year's fair.



Student Science Fair exhibitors assemble for the Opening Ceremony.



Ribbon Cutting – (left to right): Thomas Callis, 1959 SSF participant; Henry Rosenbaum, 1950 SSF participant; and Linda Carter, Chairperson



ComEd's Fidel Marquez relates his experiences as an SSF participant and later as an exhibit judge.



Takeda's Karen Devcich encourages students to pursue their interests in science.



Maria Thompson, Motorola Solutions Foundation, informs students of Motorola's investment in STEM education.



The Arrangements Team – (left to right): Magally McDowell, Eva Pitts. and Ethelene Hare



About the Chicago Public Schools Student Science Fair (CPSSSF)

About the Fair

We are proud to present the 63rd Annual Chicago Public Schools (CPS) Student Science Fair. The fair originated in 1950 as a vehicle to encourage and motivate young science students. Since then, a volunteer army of teachers and administrators has sustained this exemplary program. The objectives of the CPS Student Science Fair are to:

- provide opportunities and support for students to conduct authentic research
- expose students to diverse science learning communities
- obtain scholarships for selected Chicago Public Schools graduating seniors
- maintain perpetual interest in fostering scientific research, invention, and technological development
- promote scientific interests and hobbies of students
- conduct an annual science fair, symposium and essay contest

School, Regional, and City Science Fairs

More than 12,000 students enter projects, beginning at the local school level. Local school winners exhibit at the regional level. Approximately 300 winners from 11 Regional Science Fairs are exhibiting at this three-day citywide fair. The CPS Student Science Fair is always held in the spring at the Museum of Science and Industry.

Student Science Symposium and IJAS Essay Contest

Additional components of the fair are the CPS Student Science Symposium and IJAS Essay Contests. High school students participate in the symposium competition, presenting their research to a panel of judges. High school students and 7th- and 8th-graders participate in the essay contests, writing about a given contemporary issue in science.

State and International Fairs

Each year, approximately 50 students are selected to participate in the exhibition, and 25 research paper presentations are delivered at the Illinois Junior Academy of Science (IJAS) State Science Fair. This event is scheduled May 3 and 4, 2013, at the University of Illinois, Champaign-Urbana Campus. In addition,

the four top-scoring students from the CPS Student Science Fair will participate at the International Science and Engineering Fair (ISEF), which will be held in Phoenix, Arizona, May 12-17, 2013.

Sponsors

Primarily, the CPS Student Science Fair, Inc. has three sponsoring organizations.

The Chicago Public Schools, Office of Pathways to College and Career oversee the planning for the local school and regional science fairs. The CPS Office of Pathways to College and Career is the host department for CPSSSF, employing the Regional Science Fair Coordinator, CPS/SSF Liaison and contributing operational funds to run the fair each year.

The Museum of Science and Industry hosts the citywide fair and provides technical support services to the participants and teacher volunteers.

Chicago-area corporations spearhead the drive within the Chicago business community to obtain the necessary financial support for a successful science fair experience. The Motorola Solutions Foundation, ComEd, An Exelon Company, BP America, Inc., and Takeda Global Research & Development Center, Inc. are this year's corporate sponsors.

How You Can Help

To help the CPS Student Science Fair and encourage young people to consider careers in science and technology, monetary contributions must be solicited. Without this financial support, the school and regional fair support, the production of the high quality event of the City Science Fair, and the participation in the state and international science fairs would be greatly limited.

Please consider being a contributor to the operating fund or scholarship fund, or providing special awards and tours prizes.

Please send a letter of interest to contribute to CPS Student Science Fair, Inc., P.O. Box 803945, Chicago, IL 60680-3945.



Greetings from the Mayor of the City of Chicago

Dear Friends:

As Mayor and on behalf of the City of Chicago, I offer my warmest greetings and welcome everyone gathered for the 63rd Annual Chicago Public Schools Citywide Science Fair.

This year's Science Fair proudly welcomes approximately 300 select students from various schools throughout Chicago. Because of the involved investigation and curious experimentation allowed by science and related projects, students are equipped with some of the tools necessary to excel both inside and outside of the classroom. With the theme *"Meeting Global Needs through Science, Technology, Engineering and Mathematics,"* the Fair will showcase a variety of scientific research projects from our city's best and brightest students.

This fair will not only present the students the opportunity to display their knowledge of substantial developments in the areas of aerospace science, physics, and mathematics with essays and display boards, but also make room for the development of crucial analytical and critical skills. Additionally, the process from the beginning of research to the culminating presentation builds confidence and experience that will be beneficial throughout their burgeoning academic and professional careers.

On behalf of the people of Chicago, please accept my best wishes to every participant for an enjoyable and successful competition.

Sincerely,

Mayor
City of Chicago





Greetings from the President of the Board of Directors Chicago Public Schools Student Science Fair, Inc.

Dear Students,

Since its humble beginnings in the early 1950's, Chicago's citywide science fair has been an amazing showcase of student talent, ingenuity, and inquiry. What many people think of as simply a "science fair project" is really a disciplined form of independent research that is guided by genuine interest and powered by discovery. I am extremely proud to be part of the 63rd Annual Chicago Public Schools Student Science Fair and very pleased with the work that our science fair board, committees, councils, judges, teachers, and volunteers have done in preparing our students for an amazing fair.

It's important for me to recognize our gracious host, the Museum of Science and Industry, and thank our many funders, corporate sponsors, and individuals for their generous and continued support of both our science fair operations and scholarship awards. The fair would not be possible without our longstanding partnership with the Chicago Public Schools, and we look forward to continuing to foster new pathways to college and career for our participating students.

This year's theme of Meeting Global Needs through Science, Technology, Engineering, and Mathematics (STEM) is particularly relevant in our increasingly complex world. As our population grows and our society becomes more networked, our global needs are changing rapidly. Although technology is certainly accelerating the pace of change, it is still the power of our creative ideas that drives innovation. I see this year's theme as both a charge and a challenge to our student scientists, technologists, engineers, and mathematicians. Your charge, of course, is to use your new knowledge and skills to address humanity's needs. Your challenge, however, is to address those needs in ways that are both economical and sustainable.

Prominently displayed on the rotunda of the Museum of Science and Industry are the words: "Science discerns the laws of nature, industry applies them to the needs of man." We have high expectations that the next generation of STEM professionals will help to shape the industries of tomorrow and make unique contributions to our knowledge and understanding. Although your projects are divided up into discipline-based categories, the work that many of you will do in your respective fields may require you to use interdisciplinary and even trans-disciplinary skills to solve problems. Design thinking, systems thinking, and project management will figure prominently, so be sure to develop these competencies as well.



For many of you, your journey would not be possible without the support of the many dedicated teachers, parents, and judges who see the fair not only as a showcase of talent in STEM, but also as a demonstration of the incredible potential of our students.

Keep up the momentum!

Christian D. Greer
President, Board of Directors
CPS Student Science Fair, Inc.
Vice President of Learning Initiatives
Chicago Architecture Foundation



Greetings from BP, Corporate Sponsor

Welcome!

On behalf of BP, I congratulate on your participation in the 63rd annual Chicago Public Schools Student Science Fair. Your hard work, dedication and support of your family and teachers has brought you this far, and you should be extremely proud of your achievements. You inspire us all.

BP is proud to support our participation in the 2013 Science Fair. We have more than 3,500 employees in Chicagoland, many of whom are scientists and engineers, and many of whom got their start by participating in science fairs as students. We have sponsored the Science Fair for many years, and every year we are impressed by the impressive projects the students present.

BP is one of the world's leading international oil and gas companies, providing its customers with fuel for transportation, energy for heat and light, retail services and petrochemicals products for everyday items. As far as BP is concerned, there couldn't be a more fitting theme for this year's fair than *"Meeting Global Needs through STEM (Science, Technology, Engineering and Mathematics)."* That is at the heart of what we do, in Chicagoland and around the globe.

Your science projects demonstrate the importance of scientific inquiry, and the work you do now will serve you well whatever your career path. Curiosity and continually increasing your knowledge are skills that any university and employer will value.

Again, congratulations to all of the Science Fair participants, families and teachers. I hope your experience is wonderful and memorable.

Andy Milnes
Regional Business Leader
BP Products North America Inc.



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Greetings from ComEd, An Exelon Corporation Corporate Sponsor

Congratulations to Chicago's next generation of scientists, engineers, mathematicians, and inventors on your participation in the 63rd Chicago Public Schools Student Science Fair. ComEd continues to be an energetic supporter of the Science Fair, and we look forward to seeing how students are inspired by this year's theme: *Meeting Global Needs through Science*
• *Technology* • *Engineering* • *Mathematics*.

At ComEd, we are enthusiastic about our support and investment in educational programs that get students excited about science, math and technology. The Chicago Public Schools Student Science Fair showcases the imaginations and hard work of Chicago students in the sciences. On behalf of everyone at ComEd, good luck in this year's competition. We hope you always continue to explore your potential in the field.

Anne Pramaggiore
President and CEO
ComEd



WELCOME

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Greetings from Motorola Solutions Foundation, Corporate Sponsor

Greetings to All Science Fair Participants:

Congratulations on your participation in the Chicago Public Schools' Science Fair! I applaud your interest in science and innovation and commend your entry in the 2013 fair. Hard-working students like you demonstrate the potential to make our world a better place.

At Motorola Solutions, we share your passion for innovation and scientific advancement. Motorola's global team of scientists, engineers and technicians use the scientific process you're demonstrating today to discover and develop new materials, technologies, architectures and algorithms for products that help our customers be their best in the moments that matter.

Motorola Solutions and the Motorola Solutions Foundation are proud to reinforce our commitment to learning. We extend our thanks to your teachers, parents and volunteers who have helped you reach for your potential in making this Science Fair a success.

We challenge you to continue to be your best through science and innovation as our future depends on it.

Best wishes,

Matt Blakely
Director
Motorola Solutions Foundation



**MOTOROLA SOLUTIONS
FOUNDATION**



WELCOME

Greetings from Takeda Global Research & Development Center, Inc.

To Our Scientists of Tomorrow:

Curiosity is at the heart of science and discovery. Without curiosity, we might not have computers, televisions, cars and other items we use every day. The Chicago Public Schools Student Science Fair celebrates your curiosity and how it can take you places you never thought you would go.

At Takeda Global Research and Development Center, Inc., our own curiosity helps us develop innovative medicines that improve lives. We are constantly striving toward better health for patients worldwide, and science makes it all possible. The future depends on having great scientists – like you – continuing to lead the charge.

We are thrilled to sponsor Chicago Public Schools Student Science Fair once again this year with scholarships for outstanding students to continue their education in science. This is an investment in you to become health innovators of tomorrow.

Good luck to all of you at the science fair and let me extend a special thank you to all the teachers, parents and volunteers who have given their time and dedication to support you in satisfying your curiosity and achieving your potential.

Best Wishes,

Azmi Nabulsi, M.D., M.P.H.

President,

Takeda Global Research & Development Center, Inc.





Greetings from the Museum of Science and Industry's President and CEO

Welcome and Congratulations

The annual Chicago Public Schools Student Science Fair is always an inspiring time for us at the Museum of Science and Industry. The hundreds of projects on display demonstrate such innovative thinking and hard work that I see it as a sign of a bright future for STEM careers.

For 63 years, Chicago's young scientists and inventors have displayed their ideas at MSI where they've been seen not only by judges and family members but also by guests who visit the Museum on science fair weekend. These students are showing people that science is fun, teaching them that science is all around them, and inspiring them to come up with their own discoveries. It's a great opportunity for students to serve as role models to younger children.

The Museum's efforts, like that of the science fair, aim to inspire today's students to become tomorrow's scientists. We know that science and technology are so critical to our well-being, our nation's economic growth, and our environment. Scientific discoveries will help us overcome challenges like climate change, energy, health, security and hunger.

The Museum's partnership with the CPS Student Science Fair exemplifies our vision: to inspire and motivate our children to achieve their full potential in the fields of science, technology, medicine and engineering. We're working to achieve this vision through our Center for the Advancement of Science Education, which reaches out to students, teachers, communities and schools with innovative programs designed to get students excited about science.



So I'd like to extend a warm welcome to the students whose work is on display here as well as to the parents, teachers, judges and supporters who make the science fair a success.

Good luck to all the participants. We're proud of all that you have accomplished to make it to the science fair. You are our next generation of scientists, engineers, explorers and thinkers, and your work is an inspiration to us all.

Best wishes,

David R. Mosena
President and CEO
Museum of Science and Industry, Chicago



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WELCOME

Greetings from the Chicago Public Schools Chief Executive Officer

Dear participants and attendees:

On behalf of the Chicago Public Schools, I welcome all students, teachers, parents, volunteers and guests to the 63rd Annual City Science Fair.

First, and most importantly, I want to address our students, who have worked arduously throughout the year to prepare for the Science Fair exhibitions. Students have engaged in their projects with great professionalism and knowledge and it has not been without months of research and analysis, which are critical skills for successful Science Fair projects. Given the national and local emphasis on growing the fields of science, technology, and mathematics, your participation in the Science Fair is a positive step toward preparing you for these fields.

Secondly, I thank Science teachers for their passion and commitment —two qualities that are essential to the success and effectiveness of the program in schools. With their support, our students hone their analytical skills, becoming powerful thinkers, who will be prepared for their future majors and careers.

Lastly, but not least, I appreciate the support of all the generous contributions the Science Fair has received this year. I also thank the Science Fair, Inc. for their invaluable partnership and to all of the volunteers present today.

Congratulations to everyone and I wish you the best!

Sincerely,

Barbara Byrd-Bennett,
Chief Executive Officer
Chicago Public Schools



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Greeting from the Chicago Public Schools Chief Officer - Office of Teaching and Learning

Teachers and Students,

Welcome to the 63rd Annual City Science Fair! It brings me great joy to welcome teachers and students and congratulate you for participating today.

During the Science Fair, you will showcase the results of your preparation, hard work, and dedication to your Science project. Your presence today demonstrates the desire to enhance your skills and become critical thinkers.

The Science Fair program is delivered in partnership with Science Fair, Inc. with the goal of engaging students in meaningful and challenging academic work in addition to preparing them for the growing fields of science, technology, engineering, and mathematics.

This program would not be possible without the dedication of talented teachers and parents, who work hard behind the scenes to help students develop their projects and fine-tune their presentations. Your investment of time and resources proves that when parents, teachers and students work together, our students accomplish great things. Your work is invaluable to promoting the innovation that will prepare our young scientists for continued success.

I wish all the participants the best of luck and thank all the teachers involved.

Sincerely,

Annette Gurley
Chief Officer
Office of Teaching and Learning



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Greetings from the Officer of the Office of College & Career Preparation

Dear Science Fair Students, Teachers, Staff, and Supporters:

It is my pleasure to congratulate students for the excellent work they have accomplished as part of the rigorous Science Fair program. Teachers, staff, and other guests are here today to not only to learn about your projects, but also to celebrate your strong work ethic and commitment to Science, Technology, Mathematics and Engineering, which are critical to the future of our society. As a representative of the Office of College and Career preparation and the Department of Academic & Learning Supports, it makes me proud to see students, who are on a path to successful academic and professional careers.

This 63rd Annual Citywide Chicago Public Schools Student Science Fair would not be possible without members of the Science Fair Inc. who have fundraised effortlessly to ensure that the 2013 City Science Fair was a valuable experience for all participants. As a result of their efforts, Motorola, BP America, Inc. ComEd, An Exelon Co., and Takeda Global Research & Development Center, Inc. and the Museum of Science and Industry have provided generous contributions. The kind support of our site and corporate sponsors allows us to have this event for over 300 participants today. Over 70 students will participate in the Illinois Junior Academy of Science and four students will participate at the International Science and Engineering Fair. Thank you for collaborating with the Chicago Public Schools.

Teachers are important to the achievement of students and their participation in programs such as the Science Fair. They are key partners in our efforts to ensure students graduate with skills that will enable them for long term success in post-secondary and careers. I appreciate your dedication to our students and the time you have devoted for this 63rd Annual Citywide Student Science Fair.



To everyone here, I welcome you and thank you for being here today.

Sincerely,

Akeshia Craven-Howell
Officer
Office of College & Career Preparation

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Greetings from the CPS Manager of Academic Competitions

Science Fair Participants, Guests, and Donors:

Welcome to the 63rd Annual Citywide Chicago Public Schools Student Science Fair. This year, over 300 students from diverse backgrounds and academic levels proudly represent their schools with Science projects they worked diligently on. These future leaders showcase their work in front of a multitude of people, including teachers, guests, sponsors, CPS administrators, Central Office and Science Fair Inc. partners. Students' projects are based on a preselected annual topic, Meeting Global Needs through Science, Technology, Engineering and Mathematics (STEM). The topic gives students the opportunity to be creative in their work and to interpret the topic as they envision it. Additionally, students are challenged with tangible world issue that they can address with the skills they have developed in their STEM classes. As students continue to build their knowledge of Science, there is significant potential for them to create long term solutions that have a global impact. Congratulations to the bright, talented, and committed students of this Science Fair for being selected to present their projects today. I wish you the best of luck as you progress in your academic careers and beyond. I also acknowledge the students' teachers for guiding them as well as the event's sponsors for continuously supporting this valuable and important program.

Best Regards,

Sylvia Nelson Jordan
Manager, Academic Competitions
Chicago Public Schools
Department of Academic Learning & Support



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Greetings from Student Science Fair, Inc. Chairperson

This year's theme *Meeting Global Needs through Science, Technology, Engineering and Mathematics* focuses on the need of every nation to move forward to meet the needs of each individual living on earth. This year I welcome and congratulate the 277 stellar students from Chicago Public Schools, who have accepted the science fair challenge and have succeeded to the City-wide fair. You are the young men and women of the future. Discoveries are waiting to be made and global innovations are waiting to be put forth. By using your knowledge in science, technology, engineering and mathematics it opens up opportunities for you to bring great discoveries and innovations into reality, not only for us here in the United States, but for people in every part of the world.

I would like to express my sincere appreciation to all the teachers, parents, volunteers and institutions that have assisted these young leaders with their pursuit in completing an experimental or design project. Your unyielding efforts and support have motivated these students to obtain the highest level of confidence, bringing them to this level of success.

On a daily basis we hear about financial difficulties and tribulations. Today we witness how financial support has helped bring talented youth together to showcase their scientific research, inventions, engineering designs, technological development and mathematical problem solving. My sincere gratitude goes to the CPS Student Science Fair, Inc. Board of Directors and our major corporate sponsors – Motorola Solutions Foundation, ComEd, An Exelon Company, BP America Inc. and Takeda Global Research & Development Center, Inc. for their continual support and dedication to science fair. Your generous contributions have provided many valuable learning opportunities, as well as to the success of this event today. Also, thank you to our academic supporter – Chicago Public Schools and our site host – The Museum of Science and Industry.

Again, congratulations to all participants and to all that have contributed to the success of this 63rd Student Science Fair. I encourage all of our



science fair participants to continue on the path of science, technology, engineering and mathematics so it can become your foundation for meeting future global needs.

To everyone - enjoy the science fair!

Luba Johnson
Chairperson
Chicago Public Schools Student Science Fair, Inc.



Greetings from Student Science Fair, Inc. Interim Executive Director

In his first State of the Union address, President Obama remarked that while we celebrate the winner of the Super Bowl we should also celebrate the winners of the Science Fair. The president is a great fan of science fairs as is Arne Duncan, the Secretary of Education.

Why would the President of the United States care about science fairs? There are no odds on the winner. The media will print the names and photos of the dog named "best in show," at the annual dog show. The attention given to sports is never ending. What about the press that is given to the winners of science fairs? The public for the most part gets very little to no news from the media on this. Isn't it time to start focusing on the success of our students?

The President cares about the science fairs because he knows that young people who take up the challenge of STEM subjects are those who are going to become the most productive citizens of our country. He is smart and recognizes smart. Science fair kids are no ordinary students. They jumped into the incubator of our next community leaders, not through the portal of business or politics, but through the avenue of making conditions better for mankind.

Welcome to the exhibition of the next generation of Edisons, Newtons, Salks, Carvers, Serenos, Einsteins, Jobs', el-Khwarizmism and Molinas, Higginbothams, and Jemmisons.

Robert Frost wrote of the "road less traveled." These students for whatever reason chose that road which has led them to the challenging task of scientific research and inventive design. They are here to show their work. Let us do as the President has asked and celebrate these science fair participants at the 63rd annual Student Science Fair. They have the potential of making great discoveries, perhaps cure cancer, heart disease, solve the great puzzlements of mathematics, build the



next device which will change the way we communicate, and quell the damage caused by climate change. Hopefully they will also stop war, famine, habitat destruction, and the violence that has plagued our community.

Stand up and cheer these awesome kids. Pass the word about these amazing students who attend the Chicago Public Schools. Write to the President and tell him that you have witnessed exemplary scientific, technological, engineering and mathematical research endeavors.

Melanie Wojtulewicz
Interim Executive Director

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Corporate Sponsors

Beginning in 1958, the scope and complexity of the Science Fair outgrew the ability of the Chicago Board of Education and the teacher volunteers to continue without financial support from the business community. Illinois Bell Telephone was the first to recognize the importance of this premier academic event to the students of this city and participated as a corporate sponsor.

We are particularly grateful to those at Motorola Solutions Foundation, ComEd, An Exelon Company, BP America, Inc., and Takeda Global Research & Development Center, Inc. whose leadership was essential in helping us obtain the necessary support of local business and industry, and whose generous financial contributions made this year's Science Fair possible.

Over the years, the involvement, responsibilities, and obligations of the corporate sponsor have evolved.

Currently, Science Fair asks the following of the corporate sponsor:

- Provide a substantial contribution of up to \$25,000 for operating capital.
- Provide assistance in soliciting additional funds for the balance of the costs incurred. These costs include goods and services, publications, scholarships and grants, support to regional fairs and the city fair at the Museum of Science and Industry, and participation at the Illinois Junior Academy of Science State Science Fair and the International Science and Engineering Fair.
- Provide help in securing a corporate sponsor for the next year's Science Fair.

For further information about becoming a corporate sponsor please send inquiries to CPS Student Science Fair, Inc., P.O. Box 803945, Chicago, IL 60680-3945

We would greatly appreciate your partnership.

2013	BP America, Inc.,	Kraft Foods	1983	Peoples Gas
	ComEd, An Exelon Company	The Motorola Solutions Foundation	1982	Illinois Bell Telephone
	The Motorola Solutions Foundation	2003	1981	Sears, Roebuck and Company
	Takeda Global Research & Development Center, Inc.	BP America Inc.	1980	International Harvester
2012	BP America, Inc.,	Kraft Foods	1979	Morton Norwich
	ComEd, An Exelon Company	The Motorola Solutions Foundation	1978	Bell & Howell
	The Motorola Solutions Foundation	2000-02	1977	Zenith Radio Corporation
	Takeda Global Research & Development Center, Inc.	Kraft Foods	1976	Standard Oil (Indiana)
		1999	1975	U.S. Steel
		The Motorola Solutions Foundation	1974	Commonwealth Edison
2011	ComEd, An Exelon Company	1998	1973	Harris Bank
	The Motorola Solutions Foundation	Kraft Foods	1972	Peoples Gas
	Takeda Global Research & Development Center, Inc.	The Motorola Solutions Foundation	1971	Motorola, Inc.
		1996-97	1970	Illinois Bell Telephone
		The Motorola Solutions Foundation	1969	Borg-Warner
2010	ComEd, An Exelon Company	1994-95	1968	Western Electric
	The Motorola Solutions Foundation	Argonne National Laboratory With support from The University of Chicago Board of Governors	1967	Sears, Roebuck and Company
		1993	1966	Inland Steel
		Chicago Sun- Times	1965	Montgomery Ward
2006-09	BP America, Inc	1990-92	1964	Standard Oil (Indiana)
	ComEd, An Exelon Company	Motorola, Inc.	1963	Swift & Co.
	The Motorola Solutions Foundation	1989	1962	Commonwealth Edison
		Sara Lee Corporation	1961	International Harvester
2004-05	BP America Inc.	1988	1960	Peoples Gas
	ComEd, An Exelon Company	AMOCO Corporation	1959	U.S. Steel
		1987	1958	Illinois Bell Telephone
		Acme Steel Company		
		1986		
		Interlake Corporation, Inc.		
		1985		
		Chicago Sun-Times		
		1984		
		First National Bank of Chicago		



Contributors

To all of those who contributed to the operating and scholarship funds, we offer a very special THANK YOU for helping make the 2013 Science Fair a success.

Operating Fund

Donations to the Operating Fund help produce the City Science Fair, the Regional Science Fairs and many programs supporting students' independent research for science fair.

Academic Sponsor

- CPS, Office of Pathways to College and Career

Site Sponsor

- Museum of Science and Industry

Corporate Sponsor – \$25,000 Minimum

- BP America, Inc..
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Executive Circle - \$5,000 Minimum

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Donor - \$100 Minimum

- Hyde Park Environmental Services
- Gem Business Forms, Inc.
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- Luba Johnson
- Naylor Pipe Company

Scholarship Fund

Donations to the Scholarship Fund go to qualified high school seniors who have presented a project at a Regional and/or City-wide Science Fair and will major in one of the following areas-science, technology, engineering or mathematics in college.

Benefactors of Academic Scholarships

- DePaul University
- Illinois Institute of Technology
- Loyola University
- Northeastern Illinois University
- University of Chicago
- University of Illinois at Chicago

Corporate Sponsor – \$25,000 Minimum

- Takeda Global Research & Development Center, Inc.

Executive Circle - \$5,000 Minimum

- Roy Coleman & Dianna Uchida

Angels - \$1,000 Minimum

- BP America, Inc.
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- Donald & Helen Edwards
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- Shane Kostroun
- Michael Leib
- John McNicholas
- Network for Good
- Karen Strabel
- Nancy Toomey
- A. Kimelman & P. Landau

If you are interested in supporting the Science Fair or becoming a sponsor, additional information can be obtained by sending an inquiry to CPS Student Science Fair, Inc., P.O. Box 803945 Chicago, IL, 60680-3945, or by contacting Luba Johnson at ljohnson131@cps.edu.



Symposium and Essay Contests

Symposium Information

Symposium is an integral and popular feature of the Chicago Public Schools Student Science Fair. This event held on Thursday, March 21, 2013, takes place at the Museum of Science and Industry. Student presenters from Grades 9–12, through their teacher sponsor, first submitted a scientific research paper. In January, a committee of volunteer readers evaluated these papers and up to thirty research papers were chosen to be presented on March 21, 2013. Each student must have performed the primary research described in their paper, must defend the scientific merit of the research, and display written and oral communication skills. During the Symposium competition, a panel of judges from the scientific, academic, and business communities listen to, question, and evaluate each presentation. Fifteen to twenty finalists are selected to participate at the Illinois Junior Academy of Science (IJAS) State Science Fair at the University of Illinois in Champaign-Urbana, on May 3 and 4, 2013.

Essay Contests

IJAS Essay Contest

Also evaluated by volunteer readers at the January Symposium/Essay Reading Session are the essay papers submitted by students from Grades 7–12. As an ancillary activity of the State Science Fair, the IJAS sponsors an essay contest for students who conduct library research and prepare a 1500-word essay. The 2013 topic is: *I've Caught the Science Bug*

Ten of the IJAS student essays are selected as outstanding and the top scoring essay will be forwarded to the IJAS for evaluation at the state level.

2013 Essay Contest Semi-Finalists

Ex#	Student Name	Grade	Network	School	Title
801	Biernat, Stephanie	10	WSHS	Whitney Young	The Development of Scientific Thinking
802	Browdy, Maggie	8	WSHS	Whitney Young	Bugging Obesity: Satiation Power of Nutrients
803	Delgado, Lauren	8	WSHS	Whitney Young	Temperature's Effect on Bacterial Resistance
804	Greenberg, Georgia	9	WSHS	Whitney Young	Cicada Longevity
805	Mascarenas, Zachary	10	WSHS	Whitney Young	Red #40: To Eat A Bug Or To Not Eat A Bug
806	Rosen, Devon	10	WSHS	Whitney Young	The Worst Kind of Bug
807	Sommerlad, Hannah	10	WSHS	Whitney Young	Smallpox: The Global Assassin
808	Sorkin, Sydney	8	RavR	Hawthorne	Do Trace Amounts of Prednisone affect Fruitfly?
809	Thicklin, Raymond	8	SWHS	Lindblom	Twinkling Heart Cells
810	Villanueva, Marisol	11	WSHS	Whitney Young	The Importance of Liquid Phase Separation

* See page 29 for the Network Abbreviation Key





Symposium Schedule

Thursday, March 21, 2013

AM Presentation Schedule

Room 1-Session A 9:00a.m. - 11:30p.m.

Ex#	Student Name	Grade	Project Title	School	Category	Network
601	Azurdia, Melanie	9	Rainbow Grow	Lincoln Park	Botany	NNWH
602	Campanile, Grace	9	Paperwhites: Dark vs. Light	Lincoln Park	Botany	NNWH
603	Castro, Alexander	9	The Effect of Nitrates on Plants	Lincoln Park	Botany	NNWH
604	Mei, Roger	12	Effect of pH on Rate of Photosynthesis	Lincoln Park	Botany	NNWH
605	Miller, Celeste	9	A Shade of Grey	Lincoln Park	Botany	NNWH
606	Sielaff, Emma	9	Does Music Affect the Growth of Plants?	Lincoln Park	Botany	NNWH
607	Silva, Jessica	9	Musical Plants	Lincoln Park	Botany	NNWH

Room 2-Session B 9:00a.m. - 11:30p.m.

608	Kishawi, Deena	12	Factors Associated With Cigarette Smoking	Whitney Young	Behavioral Science	WSHS
609	Fajardo, David	10	How Sweet Is It?	Phoenix	Health Science	WSHS
610	Gutierrez, Yadid	10	Extracting Remedies	Curie	Health Science	SWHS
611	Bradley, Mackenzie	9	Ancient Greeks vs. Current Meteorologists	Lincoln Park	Environmental Science	NNWH
612	Dallek, Ben	9	How Does Color Affect Water Distillation?	Lincoln Park	Environmental Science	NNWH
613	Lockhart, Claudia	12	A Matter of Degrees	World Language	Environmental Science	P-LV
614	Ortega, Daniela	12	Going Green As You Clean!	World Language	Environmental Science	P-LV
615	Watkins, Amelia	9	Eroding Erosion	Lincoln Park	Environmental Science	NNWH

Room 3-Session C 9:00a.m. - 11:30p.m.

616	Siu, Vincent	9	Different Shapes, Different Effects	Curie	Aero-Space Science	SWHS
617	Korzenik, James	9	Wind Turbine Efficiency	Lincoln Park	Electronics	NNWH
618	Li, Jia	9	Long Lasting Batteries	Lincoln Park	Materials Science	NNWH
619	Lim, Jasmine	9	Which Additive Makes the Strongest Gelatin?	Lincoln Park	Materials Science	NNWH
620	Myren, Ross	9	The Effect of Thread Organization on Strength	Lincoln Park	Materials Science	NNWH
621	Berjot, Chloe	9	How Temperature Affects Magnet Strength	Lincoln Park	Physics	NNWH
622	Chethik, Tej		The Affect of Air Pressure on Tire Traction	Lincoln Park	Physics	NNWH
623	Whitaker, Tess	9	Home Insulation: Earning Energy Efficiency	Lincoln Park	Physics	NNWH

* See page 29 for the Network Abbreviation Key



Friday, March 22, 2013

PM Presentation Schedule

Room 1-Session D 1:00a.m. - 2:00p.m.

624 Hernandez, Josemanuel	9	What Exposure of UV Kills E.coli?	Curie	Microbiology	SWHS
625 Rasmussen, Madeleine	9	Bleach vs. Vinegar	Lincoln Park	Microbiology	NNWH
626 Walker, Marquise	11	Microdiesel	Lindholm	Microbiology	SWHS

Room 2-Session E 1:00a.m.- 2:00p.m.

627 Zhang, Weipeng	11	1011 Inhibits Prostate Cancer Migration	Whitney Young	Biochemistry	NNWH
628 Fang, Amber	10	What is the Fastest Way to Cool A Can of Soda	Curie	Chemistry	SWHS
629 Gonzalez, Magdiel	9	Best Temperature of Water for Alka-Seltzer	Lincoln Park	Chemistry	NNWH
630 Mingelgrin, Margo	9	Go Bananas!	Lincoln Park	Chemistry	NNWH

* See page 29 for the Network Abbreviation Key





Symposium Luncheon Schedule

Thursday, March 21, 2013

Columbian Room – 11:30 a.m

Remarks	Luba Johnson Chairperson CPS Student Science Fair, Inc.
Introduction of Special Guest	Nina Hike-Teague Symposium Committee Chairperson
Guest Speaker	Teresa K. Woodruff, Ph.D. Thomas J. Watkins Professor of Obstetrics & Gynecology Director, The Oncofertility Consortium Northwestern University
Recognition of Symposium Participants	Nina Hike-Teague
Recognition of Judges (Years of Service)	Nina Hike-Teague Luba Johnson



Symposium Presenters



Symposium Presenters



Symposium Presenters



Symposium Presenter



Nina Hike-Teague, Symposium & Essay Chairperson
with judge Morgan Jencius

Exhibit Information

The CPS Student Science Fair offers academically and scientifically talented young people an opportunity to showcase their accomplishments. The projects on display represent the most outstanding scientific endeavors of students in Grades 7–12.

The exhibitors at this year's CPS Student Science Fair were selected from approximately 12,000 students who competed in school and regional science fairs throughout the city during this past December and January. These winners were chosen on the basis of their scientific approach, thoroughness, creativity, and presentation.

On Friday, March 22, 2013, over 300 judges from the scientific, academic, and business communities will observe, listen to, question, and evaluate the exhibitors. Winners are selected based on established criteria as indicated in the Science Fair Handbook.

The top 50 winners will participate at the Illinois Junior Academy of Science (IJAS) State Science Fair, held May 3 and 4, 2013, on the campus of the University of Illinois, Champaign-Urbana. Students will compete with other students from around the state.

On Saturday, March 23, 2013, the top 35 outstanding high school projects will be evaluated by a special panel of judges. Four finalists will be invited to compete at the International Science and Engineering Fair (ISEF), which is being held May 12-17, 2012 in Phoenix, Arizona.

Some of the judges also function as Special Awards judges for the companies that have graciously sent them to evaluate the exhibitors. Each company may have one or more special criteria, in addition to the established criteria, by which to determine the



recipient of its special award. All CPS Student Science Fair participants will be recognized with certificates and souvenirs at the Awards Convocation on Sunday, March 24, 2013, at 1:00 p.m., in the main auditorium of the Museum of Science and Industry. Approximately 100 students will be individually recognized with cash prizes, awards, and other special gifts. In addition, all CPS Student Science Fair participants are eligible to apply for financial support grants and college scholarships in their senior year of high school.

All CPS Student Science Fair participants are WINNERS!

If you would like to serve as a judge, please contact Yolanda Del Rio at yolanda_delrio@comcast.net to have your name added to the database. At a minimum, judges must have a degree in science, mathematics, computer science, or engineering. They may not be a current employee of the Chicago Public Schools





Exhibit Schedule

Friday, March 22, 2013

Science Fair Exhibit Judging

7:30 A.M.– 8:30 A.M.	Judges Briefing and Breakfast	Main Auditorium
8:30 A.M.– 11:00 A.M.	Judging of Exhibits	West Pavilion
11:00 A.M.– 11:30 A.M.	Opening Ceremony	West Pavilion Main Entrance
11:30 A.M. - 12:00 NOON	Kicking off with a Bang and Exhibit Tour	West Pavilion
11:30 A. M. – 1:30 P.M.	Judges Buffett Luncheon	Flight Balcony
12:00 NOON – 1:30 P.M.	Recognition Luncheon (by Invitation only)	Columbian Room
12:00 NOON – 1:00 P.M.	Judging Continues	West Pavilion
1:00 P.M. - 3:15 P.M.	Fair Open to the Public	West Pavilion

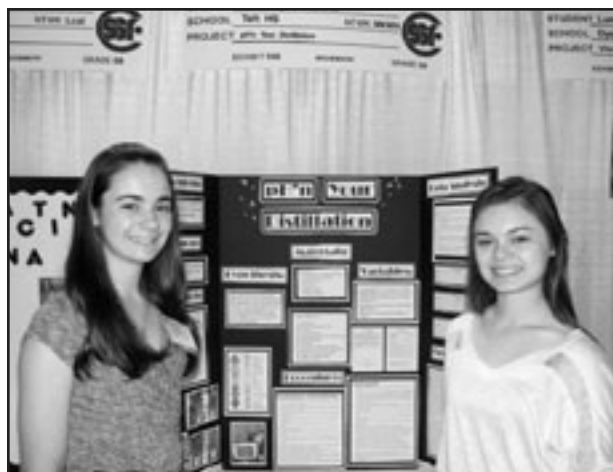


EXHIBIT JUDGING
FRIDAY



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School				
Aerospace Science									
1 E	Potts, Jacques	8	Flight Night	Skwy	Heroes				
2 E	Yuen, Melissa	8	Factors in Impact Cratering	RavR	Disney				
3 E	Siu, Vincent	9	Different Shapes, Different Effects	SWHS	Curie				
Behavioral Science									
4 E	Schwartz, Yoav	7	Learning Tools and Language Acquisitions	SSHS	Kenwood				
5 E	An, Isabel	8	Raising Awareness on Sleep Deprivation	WSHS	Young				
6 E	Garcia, Bella	8	Slow Down!	Prsh	Lara				
7 E	Jirousek, William	8	Can Kids Tell Between Medicine and Candy?	Skwy	Lenart				
8 E	Maass, Daisy Mysliwiec, Hubert	8 8	The Effects of Music on Studying	Fult	Skinner West				
9 E	Nejla, Dzafic	8	Picture This!	RavR	Budlong				
10 E	Rezko, Sarah	8	The Effect of Language on Concentration	Skwy	Lenart				
11 E	Rivas, Magdalen	8	Effects of Pharmaceutical Waste on Hydra	RavR	Hawthorne				
12 E	Anderson, Tyme	9	Can You Really Multitask?	SSHS	South Shore				
13 E	Munoz, Yesenia	9	What Effect Does Music Have on Readings Speed?	SWHS	Catalyst-Maria				
14 E	Diaz, Viky	10	Think Fast!	WSHS	Juarez				
15 E	Lee, Kayla	10	Caffeine and Typing Speed	FSHS	Morgan Park				
16 E	Musleh, Aya	10	Autism Movement Therapy	NNWH	Lane				
17 E	Padilla, Fabiola	10	Insects Attraction to Light	FSHS	Brooks				
18 E	Arzet, Arlynn	11	Which Musician Has a Better Trained Ear?	NNWH	Lake View				
19 E	Ashley, Dyrell	11	Play to This	FSHS	Julian				
20 E	Davis, Shameka	11	Campaigning Against Prejudice	WSHS	Westinghouse				
21 E	Kanarowski, Valerie	11	Chromatic Adaptation in Human Behavior	NNWH	Taft				
22 E	Williams, Nicole	11	Driving Distractions: Dare to Compare	NNWH	Lane				
23 E	McCants, Mona Lisa	12	The Effect of Gender Identity on Short Memory	SSHS	Williams Prep				
24 E	Mendez-Rozo, Rocio	12	Equine Assisted Therapies and Activities	NNWH	Payton				
25 E	Paniagua, Nayeli	12	Distractors and Visual Search Tests	SWHS	Hancock				
26 E	Rivera, Maria	12	Can Fingerprint Patterns Be Inherited?	WSHS	Juarez				
27 E	Sosa, Jennifer	12	Is Multitasking Bad?	SWHS	Hancock				
Biochemistry									
28 E	Davis, Cameron	7	Juicy Fruit	Prsh	Sheridan				
29 E	Ortiz, Amanda	8	Let Your Mind Sprout	Fult	Pritzker				
30 E	Walker, Asia	8	Do You Know A-B-O's?	LCal	Carver G				
31 E	Wischnewsky, Samuel	9	The Fertilizer Fix	WSHS	Young				
32 E	Jastrzebski, Martin	10	How Heat Affects Catalase Activity	WSHS	Young				
<table><tr><td>Network (Abbreviation)</td><td>Englewood-Gresham (EnGr), Far South Side (FSHS), Fullerton (Fulr), Fulton (Fult), Garfield-Humboldt (GarH), Lake Calumet (LCal),</td><td>Midway (Mdwy), North/Northwest Side (NNWH), O'Hare (OHar), Pershing (Prsh), Pilsen-Little Village (P-LV), Ravenswood-Ridge (RavR),</td><td>Rock Island (RkIs), Skyway (Skwy), South Side (SSHS), Southwest Side (SWHS), West Side (WSHS)</td></tr></table>						Network (Abbreviation)	Englewood-Gresham (EnGr), Far South Side (FSHS), Fullerton (Fulr), Fulton (Fult), Garfield-Humboldt (GarH), Lake Calumet (LCal),	Midway (Mdwy), North/Northwest Side (NNWH), O'Hare (OHar), Pershing (Prsh), Pilsen-Little Village (P-LV), Ravenswood-Ridge (RavR),	Rock Island (RkIs), Skyway (Skwy), South Side (SSHS), Southwest Side (SWHS), West Side (WSHS)
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Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
33 E	Puc, Marcelina	10	Colloidal AS & Bromelain on Viability of PC12	NNWH	Lane
34 E	Shahid, Bushra	10	The Effect of pH on Catalase Activity	NNWH	Uplift
35 E	Morris, Cydney	11	Amounts of Energy in Different Types of Food	SSHS	King
36 E	Ott, Jacinda	11	2,3-Butanedol Synthesis	NNWH	Lake View
37 E	Zhang, Weipeng	11	1D11 Inhibits Prostate Cancer Migration	WSHS	Young
38 E	Hayes, Emily	12	Tributyltin Disrupts Adipocyte Metabolism	NNWH	Payton
39 D	Jaber, Maseh	12	Over-expressed Genes in Cancerous Tissue	SWHS	Hancock
40 E	Plata, Oscar	12	The Effect of pH and Amylase on Starch	NNWH	Amundsen
41 E	Pratt, Brittini	12	Industrial Bones	SWHS	Lindblom
42 E	Schmidtke, Katie	12	The Magic of Food Coloring	SWHS	Bogan

Botany

43 E	Arroyo, Roxana	7	Dancing Bean Plants	P-LV	Zapata
44 E	Miller, Isabella	7	The Effects of Different Liquids on Plants	RavR	Waters
45 E	Stanislawski, Kirsten	7	Color Chromatography of Leaves	SWHS	Lindblom
46 E	Flores, Daniel	8	Which Plant Yields the Greatest Pigments?	Prsh	Seward
47 E	Hubbard, Armani	8	Does Eggshell Water Affect a Plant's Growth?	AuNL	Dvorak
48 E	James, Kaila	8	Worms vs. Grass	GarH	Gregory
49 E	Kevlicute, Gloria	8	The Effect of Worms on Plants	Mdwy	Dore
50 E	Lopez-Martinez, Ileana	8	Effect of Aspirin on Kidney Bean Growth	Fulr	Salazar
51 E	N'Daou, Beatrice	8	To Fertilize or Not to Fertilize: Plant Growth	RkIs	Kellog
52 E	Wang, Emma	8	Vigoro vs. Pylum Annelida	Fulr	LaSalle
53 E	Bariso, Kienna	9	The Effect of pH Levels on Seed Germination	NNWH	Steinmetz
54 E	Bernardino, Marisol	9	Detergent on Germination of Pinto Beans	NNWH	Steinmetz
55 E	Brethenoux, Maiwenn	9	The Force Within the Plants	NNWH	Ogden International
56 E	Castro, Alexander	9	The Effects of Nitrates on Plants	NNWH	Lincoln Park
57 E	Cosio, Alejandra	9	The Effect of Music on Plant Growth	SWHS	Catalyst-Maria
58 E	Foster, Korey	9	How Do Roots Grow When Gravity Changes?	SSHS	South Shore
59 E	Pineda, Daisy	9	Organic vs. Inorganic Fertilizers	NNWH	Northside
60 E	Reddan, Whitney	9	Effect of Smoke-Water on Germination Rates	WSHS	Young
61 E	Urquizo, Alicia	9	Effect of Fertilizer on Bean Seed Germination	NNWH	Steinmetz
62 E	Xue, Eric	9	Effects of pH on Plant Growth	NNWH	Lincoln Park
63 E	Filipowicz, Molly	10	Radish Seed Germination	NNWH	Steinmetz
64 E	Frisby, Austin	10	Rainbow Ferns	NNWH	Lincoln Park
65 E	Garcia, Cintia	10	Germination Inhibitors of Tomato Seeds	NNWH	Steinmetz
66 E	Gasparas, Joseph	10	Growing Rates of Hybrid Sunflowers	FSHS	Chicago Agricultural
67 E	Lloyd, Harold	10	Do Detergents Affect Plant Growth?	SSHS	South Shore
68 E	Neale, Arpad	10	The Effect of CO ₂ on Chlorella Algae	NNWH	Lane
69 E	Rico, Cruz	10	Where's the Light?	NNWH	Von Steuben
70 E	Cao, Vivian	11	Oxygen Productivity Through Photosynthesis	NNWH	Lake View

* See page 29 for the Network Abbreviation Key



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
71 E	Pedro, Taiwo	11	The Effect of Soil Type on Plant Height	NNWH	Uplift
72 E	Salvador, Amairani	11	Plants and Soil	WSHS	Juarez
73 E	Allen, Ayana	12	Different Colored Lights vs. Plant Growth	SSHS	King
74 E	Bardeau, Amanda	12	Soybean Nitrogen	FSHS	Chicago Agricultural
75 E	Gasparas, Brandon	12	The Effects of Growing Medium on Plant Growth	FSHS	Chicago Agricultural
76 E	Hasty, Myles	12	Hydroponics: Vertical vs. Flat-Bed	FSHS	Chicago Agricultural
77 E	Hernandez, Gabriela	12	Effect of Fertilizer on Raphanus sativus	NNWH	Kelvyn Park
78 E	Mei, Roger	12	Effect of Acid Rain on Rate of Photosynthesis	NNWH	Lincoln Park
79 E	Mirzakhail, Ayesha	12	Effects of Light Color and Photosynthesis	NNWH	Chicago Math & Science
80 E	Muhammad, Jasmine	12	The Effect of Acid on Plant Growth	FSHS	Morgan Park
81 E	Scott, Alyx	12	Water Type vs. O ₂ Production in Aquatic Plants	SSHS	King

Chemistry

82 E	Butler, Alex	7	Measuring Carbon Dioxide in Pop	GarH	Sumner
83 E	Camphor, Rae/Shunna	7	Are More Household Items Base or Acidic?	Skwy	Mann
84 E	Cooper, Dayana	7	Fast Acting	Skwy	Earhart
85 E	Daniel, Shreya	7	Which Drink Has the Most Electrolytes?	RavR	Bell
86 E	Demes, Jacob	7	Ready for S'more Science?	Fult	Pritzker
87 E	Fitzpatrick, Michael	7	Fizzies	OHar	Beaubien
88 E	Laudarji, Valori	7	Balloon Morphing	Skwy	Mann
89 E	Macias, Nathaly	7	Temperature and pH Levels in Orange Juice	Prsh	Hedges
90 E	Andrade, Mayda Martinez, Litzy	7 7	NaCl vs. MgSO ₄	GarH	Nobel
91 E	McCarthy, Ellavieve	7	Rusting Out: Different Acids Effect Steel	RkIs	Kellog
92 E	Millan, Joselin	7	Tide vs. Gain	GarH	Nobel
93 E	Nelson, Kamryn	7	Which Juice Has the Most Vitamin C?	Skwy	Earhart
94 E	Oden, Taylor	7	Polymer Powers	Mdwy	Owen
95 E	Rah, Annah	7	Take Two Aspirin and Call Me In The Morning	WSHS	Chicago Virtual
96 E	Sanchez, Pablo	7	Electroplating: Copper-Key	Mdwy	Nightingale
97 E	Adeyinka, Jemima	8	Clean Water Challenge	Brnm	Beasley
98 E	Auger, Mark	8	Colors Behind the Crime	OHar	Farnsworth
99 E	Daniels, Tyler	8	*Ice, Ice, Baby...*	Skwy	Lenart
100 E	Fleming, Leah	8	Rise of the Cupcakes: The Egg's Revenge	RkIs	Cassell
101 E	Haugh-Ewald, Dylan	8	Effect of Base Oil on Energy in Biodiesel	NNWH	Lane
102 E	Jones, Ryan	8	Coffee Break	Fult	Chopin
103 E	Marroquin, Noemi	8	Fat or Fiction	Fult	Chopin
104 E	McAlpin, Cynthia	8	Got Milk?	GarH	Kellman
105 E	Mulica, Adam	8	Which Liquid Has More Electrolytes?	Mdwy	Twain
106 E	Neal, Deshanna	8	Organic vs. Nonorganic	GarH	Gregory
107 E	Ortolano, Maxwell	8	Toxic Containers	OHar	Chicago Academy
108 E	Parsons, Kiana	8	What Makes Ice Melt Faster?	Skwy	Lenart

* See page 29 for the Network Abbreviation Key



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
109 E	Urdiales, Javarus	8	What's In That Bubble?	Skwy	Heroes
110 E	Villagomez, Fey	8	pH in Water	Mdwy	Dore
111 E	Yeh, Hugh	8	The Effect of Heat on Polyethylene	NNWH	Lane
112 E	Eldigair, Fatima	9	The Cool Blue Light of Luminol	NNWH	Lincoln Park
113 E	Leja, Alexander	9	Soda Pop	NNWH	Taft
114 E	Paczwa, Justyna	9	Candy Chromatography	SWHS	Kennedy
115 E	Benson, Tatiana	10	The Thirst Quencher	FSHS	Carver Military
116 E	Diaz, Jose	10	pH vs. Temperature	SWHS	Curie
117 E	Fang, Amber	10	What is the Fastest Way to Cool Down a Soda?	SWHS	Curie
118 E	Gomez, Deana	10	Which Water is the Hardest?	SWHS	Curie
119 E	Herrera, Mayra	10	Tracing Caffeine in Tea	FSHS	Brooks
120 E	Klein, Jacob	10	Orange Juiced!!!	NNWH	Ogden International
121 E	Lutz, Tyler	10	Lithium Dihydrogen Monoxidization	NNWH	Steinmetz
122 E	Martinez, Connie	10	Electrolyte Face Off	WSHS	Juarez
123 E	McGill, Timothy	10	Corrosion of Metals	SSHS	Chicago Military
124 E	Morgan, Jazlynn	10	What's In Your Water?	SSHS	South Shore
125 E	Opakunle, Omobloaji	10	The Fuel of the Future	SWHS	Lindblom
126 E	Ridley, Fahrenheit	10	Dark vs. Light	FSHS	Carver Military
127 E	Rubio, Jennifer	10	Which Object Leaches BPA the Most?	SWHS	Hubbard
128 E	Saavedra, Andrew	10	The Oxidation of Steel Wool	FSHS	Brooks
129 E	Pauer, Alexander	11	Nano-Electrolysis	NNWH	Lane
130 E	Purkett, Tia	11	Fruit Manufacturers Making Misleading Claims	SSHS	South Shore
131 E	Tavera, Reyna	11	Does Temperature Affect the Calcium in Milk?	SWHS	Hubbard
132 E	Ansari, Ali	12	Properties of a Bismuth Telluride	NNWH	Amundsen
133 E	Burns, Tashay	12	What Color Bell Pepper Has the Most Vitamin C?	SSHS	King
134 E	Dorsey, Tabbitha	12	Which Orange Juice Has Most Vitamin C?	SSHS	South Shore
135 E	Hynes, Kaila	12	Plastic Milk	SSHS	Chicago Military
136 E	Umair, Syed	12	Starch Decomposition	NNWH	Amundsen
137 E	Varela, Victoria	12	Fe in Cereal	FSHS	Washington

Computer Science

138 E	Portis, Tyler	10	Hiding In Plain Sight	FSHS	Brooks
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Earth Science

139 E	Hernandez, Heriberto	7	Hurricane Roofs	Mdwy	Lee
140 E	Tenney, Madison	8	Lead Free?	RavR	Peirce
141 E	Juarez, Lorena	9	Does Turbidity Affect Water Temperature?	SWHS	Hubbard
142 E	Licea, Brayan	9	Carbon Dioxide and Global Warming	WSHS	Juarez
143 E	Echols, Kristina	10	Limestone No More	FSHS	Morgan Park
144 E	Uddin, Sahdia	10	Solar Collector	NNWH	Von Steuben

* See page 29 for the Network Abbreviation Key



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
Electronics					
145 E	Kadus, Matthew	8	Parabolic Reflection: Can It Improve Wi-Fi?	OHar	Ebinger
146 E	Nesbit, Kevin	9	Pencil Resistors	WSHS	Clark M
147 E	Kinds, Deanna	11	Finding A Balance	FSHS	Morgan Park
Engineering Science					
148 D	Qualls, Raymond	7	Power of Wind and Alternative Energy	AuNL	Frazier
149 E	Gani, Isha	8	Using Micro-Grid to Reduce Transmission Loss	NNWH	Lane
150 E	Magana, Jose	8	Effects of Insulations on Water Temperature	Prsh	Columbia Explorers
151 E	Zerillo, Dominic	8	Blade Runners	RkIs	Keller
152 E	Garcia, Patricia	9	Keeping You in Suspension	WSHS	Marine Military
153 D	Bibat, Christopher	10	Improving Wind Turbine Blade Design	NNWH	Von Steuben
154 E	Jones, Kerry	10	Efficiency of the Windmill	FSHS	Morgan Park
155 E	Ramirez, Jesus	11	The Relationship of Power and Amount of Blade	NNWH	Lake View
156 E	Davies, Dekonti	12	Trench Etching in MOSFET Devices	NNWH	Payton
157 D	Herrera, Charles	12	Rotational Analysis of a GPS Unit	FSHS	Chicago Agricultural
158 E	Mora, Giovanni	12	Truss't in Bridges	NNWH	Amundsen
Environmental Science					
159 E	Conley, Matt	7	Hydroponics and Sunlight	NNWH	Taft
160 E	Curtin, Colleen	7	Investigating the Best Soil on Grass Growth	Mdwy	Dore
161 E	Hagan, Brandon	7	Going Green	Prsh	Hendricks
162 E	O'Brien, Fiona	7	Carbon Rootprint	OHar	Edison
163 E	Forster, Christian	8	Does different Octane Contain Planet Pain?	Fult	Jackson A
164 E	Kayser, Jacob	8	Duckweed's Effect on Contaminated Water	RavR	Hawthorne
165 E	Meyer, Stephanie	8	Cleaning Up Pharmaceuticals in Tap Water	OHar	Edgebrook
166 E	Morrison, Eugeniaiah	8	More than a Pungent Odor	Mdwy	Christopher
167 E	Rathore, Aditi	8	Soil Composition	OHar	Beaubien
168 E	Cook, Montaija	9	Cleaning Up Oil Spills	SSHS	Hirsch
169 E	Curioso, Mercel	9	No More Spilling the Oil!	NNWH	Ogden International
170 E	Keshk, Ahmad	9	The Environment and Biogas	WSHS	Young
171 E	Philip, Twinkle	9	Greenhouse Effect on the Plant Growth	NNWH	Von Steuben
172 E	Silva, Eric	9	Combating Oil Spills	NNWH	Taft
173 E	Watkins, Amelia	9	Eroding Erosion	NNWH	Lincoln Park
174 E	Chikkala, Venkat	10	Cleaning Up Oil Spills	NNWH	Von Steuben
175 E	Conde, Emily	10	Cleaning Up Oil Spills	NNWH	Von Steuben
176 E	Shamshuddin, Bushraa	10	The Effect of SODIS on Turbid Waters	NNWH	Lane
177 E	Suden, Andriy	10	Effect of Aeration on Compost Temperature	NNWH	Steinmetz
178 E	Alvarez, Isa	11	Microwave Radiation on Artemia salina	WSHS	Westinghouse
179 E	Branch, Jaeda	11	Catch the Sun	FSHS	Morgan Park

* See page 29 for the Network Abbreviation Key

EXHIBIT JUDGING
FRIDAY



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
180 E	Cavan, Felix	11	Homemade Biodiesel	SWHS	Hope
181 D	Poole, Thomas	11	A Comparison of Soil Moisture Sensors	FSHS	Chicago Agricultural
182 E	Skowron, Kornelia	11	The Weathering Effect of Acid Rain	NNWH	Lane
183 E	Slote, Safa	11	Composition for Best Alternative Fuel	NNWH	Chicago Math & Science
184 E	Ayala, Cesar	12	Pollutants and Brine Shrimp	NNWH	Chicago Math & Science
185 E	Chavez, Kathya	12	Tortillas Cleaning My Air	SWHS	Curie
186 E	Garcia, Danyelle	12	How much Ammonium Hydroxide is in Our Meat?	FSHS	Washington
187 D	Gasca, Alexander	12	E.coli? Iron It Out!	NNWH	Payton
188 E	Gillespie, Kwanita	12	The Effect of Soil on the pH of Water	SSHS	Dyett

Health Science

189 E	King, Alexander	7	Mice + Sprite = Fat	RavR	Burley
190 E	Robinson, Monica	7	Pain Relievers	AuNL	Mason
191 E	Meza, Brenda Vargas, Jessica	7 7	Which One is Better: Kool Aid or Hair Dye?	LCal	Gallistel
192 E	Allmon, Duwayne	8	Effects of Music on Blood Pressure	Fult	Montefiore
193 E	Fajardo, Christopher	8	Acids in Your Stomach	Prsh	Shields
194 E	Garner, Angelica	8	Which Water Filtration Method Works Best?	Skwy	Dixon
195 E	Villanueva, Jesus	8	Soda, Water, Milk, and Bones	Mdwy	Peck
196 E	Brandon, Michael	9	The Effects of Caffeine on Your Typing Speed	SWHS	Catalyst-Maria
197 E	Pacheco, Jocelyn	9	How Does Music Affect the Human Heart Rate?	SWHS	Curie
198 E	Winsley, Omon	9	Are Students Eating Healthy?	SSHS	Hirsch
199 E	Gutierrez, Yadid	10	Extracting Remedies	SWHS	Curie
200 E	Mendez, Alyssa	10	The Effect of Race on Lung Capacity	NNWH	Lane
201 E	Nina, Zoraidin	11	How Does Caffeine Affect an Animal's Heart?	NNWH	Amundsen
202 E	Dunn, A'Shyah	12	Brand Name vs. Generic Aspirin	SSHS	King
203 E	Henley, Unique	12	Blood Pressure	SSHS	Williams Prep
204 E	Lane, Dominique	12	What Skin Products Protect Your Skin?	SSHS	King
205 E	Speese, Ryan	12	Disparities in Breast Cancer Screening	NNWH	Northside

Materials Science

206 E	Portillo, Brandon	7	A Straight Flush	FULT	Suder
207 E	Robinson, Kobie	7	Which Wood Absorbs the Least Amount of Water?	Skwy	Neil
208 E	Bittner, Brett Aranda, Nathalia	8 8	Burn Baby Burn	Mdwy	Byrne
209 E	Collazo, Julissa	8	Got Casein?	Fult	Erie Charter
210 E	Scholle, Margaret	8	Tires in the Windy City - Which One is Best?	Fulr	Franklin
211 E	Adeagbo, Jubril	9	How Far Will It Fly?	SSHS	South Shore
212 E	Bianchi, Samuel	9	Which Type of Cycling Can Produce More Power?	NNWH	Ogden International
213 E	Lopez, Alicia	9	Effect of Temperature on Rubber Elasticity	NNWH	Kelvyn Park

* See page 29 for the Network Abbreviation Key



Exhibits by Category

Ex#	Student Name	Grade	Title	Network	School
Mathematics					
214	E Ledsky, Aaron	9	Predicting the Baseball Playoffs	WSHS	Young
215	E Raymundo, Isabel	11	Win or Lose	SWHS	Lindblom
Microbiology					
216	E Heflin, Nicole	7	Allicin Wonder Drug	OHar	Edison
217	E Hoefling, Johanna	7	Which Hand Sanitizer Are Germs Afraid Of?	Mdwy	Twain
218	E Wong, Lawrence	7	I'm Gassy	Prsh	Sheridan
219	E Bartley, Anthony	9	The Effects of EX527 and NTa on Hirano Bodies	SWHS	Lindblom
220	E Hernandez, Josemanuel	9	What Exposure of UV Kills E.coli	SWHS	Curie
221	E Li, Queenie	9	Garlic's Effect on Salmonella	WSHS	Young
222	E Wester, Autumn	9	Yeast Cells	FSHS	Morgan Park
223	E Banet, Kamil	10	The Effect of Electromagnetism on Cancer Cells	NNWH	Lane
224	E Latuszek, Adrianna	10	Daphnia Heart Rate in Different Temperatures	NNWH	Steinmetz
225	E Moreno, Diana	10	Prevention of Bacteria	WSHS	Juarez
226	E Pagos, Paul	10	Nanoparticles in Sunscreen on S. epidermidis	NNWH	Lane
227	E Mubarak, Samiyah	11	What's Done in the Dark Comes Out in Light	SWHS	Lindblom
228	E Pham, Hai	11	How Do Food Preservatives Affect Growth of M.O.	NNWH	Amundsen
229	E Rivera, Yaretzi	11	How To Prevent Acne	WSHS	Juarez
230	E Walker, Marquise	11	Microdiesel	SWHS	Lindblom
231	E Gamon, Ana	12	The Spicy Inhibitors	NNWH	Lake View
232	E High, Megan	12	Nitric Oxide's Impact on the FTO Enzyme	NNWH	Northside
233	E Jones, Kristie	12	Dandelion Against Bacteria	SSHS	Williams Prep
234	E Le, Ngan	12	The Effect of Sodium Chloride on E.coli	NNWH	Amundsen
235	E Price, Victoria	12	The Dishwashing Challenge: Brands vs. E.coli	SSHS	King
236	D Stonewall, Keven	12	Impact of Aging of Tumor Vaccine Role of DCs	FSHS	Chicago Agricultural
237	E Williams, Joshua	12	Effects of Disinfectants on Bacteria	SSHS	Williams Prep
Physics					
238	E Dalponte, Elizabeth	7	Race Your Marbles	RkIs	Cassell
239	E Klaiber, Emma	7	Turning on the Light: Incandescent vs. CFL	RkIs	Kellog
240	E Malone, Jemeka	7	Battery Energy and Temperature	GarH	Sumner
241	E Perez, Mario	7	Aluminum or Wooden Bat?	AuNL	Clark G
242	E Turner, Amiya	7	I'm Pulling You In: Magnetic Field and Water	RkIs	Kellog
243	E White, James	7	What Factors Affect Transmittance Amounts?	NNWH	Ogden International
244	E de la Fuente, David	7	KERS Flywheel Energy Storage	RavR	Blaine
245	E Brannigan, Matthew	8	Aerodynamics: What A Drag	RkIs	Keller
246	E Gong, Miao	8	Death of an Orange	Prsh	Healy
247	E Martinez, Jesus	8	Bottled Up Buoyancy	Prsh	Calmeca
248	D Reyes Zgarrrick, Carlos	8	The Skeleton of Architectural Masterpieces	NNWH	Lane
249	E Sanchez, Jessie	8	Temperature Drop	Mdwy	Nightingale

* See page 29 for the Network Abbreviation Key

EXHIBIT JUDGING
FRIDAY



Exhibits by Category

250 E Butnariu, Matthew	9	Slow Motion	SWHS	Hubbard
251 E Fenton, Candace	9	Parachutes	SWHS	Lindblom
252 E Galvan, Angelica	9	Geodesic Domes	NNWH	Von Steuben
253 E Gros-Martial, Anatole	9	The Effect of Density on Refraction	NNWH	Lincoln Park
254 E He, Jesse	9	Give Me More Power!	NNWH	Lincoln Park
255 E Vazquez, Daniel	9	Potential Energy vs. Kinetic Energy	SWHS	Hubbard
256 E Chavez, Jose	10	Density: White Eggs vs. Brown Eggs	FSHS	Carver Military
257 E Dawson, Jason	10	Blood Spatter Analysis	NNWH	Taft
258 E Hank, Travis	10	Good Vibrations	WSHS	Young
259 E Pei, Alexander	10	The Effect of Shade on Photo-voltaic Arrays	WSHS	Young
260 E Sandoval, Joseph	10	Energy Efficiency of Light Bulbs	NNWH	Taft
261 E Aftab, Muhammad	11	Efficiency of Electromagnets	NNWH	Chicago Math & Science
262 E Aguilar, Jennifer	11	Solar Cooking	SWHS	Hancock
263 E Mota, Gustavo	11	Saltwater vs. Freshwater	FSHS	Carver Military
264 E Muhammad, Khan	11	Bouncy Balls	NNWH	Lake View
265 E Oliver, Nicholas	11	What Is the Fastest Way to Cool a Soda?	FSHS	Chicago Agricultural
266 E Serrano, Jovani	11	Measuring Up: Speed of the Muon	FSHS	Brooks
267 E Bakala, Teliane	12	Measuring Sugar in Syrups Using a Polarimeter	NNWH	Chicago Math & Science
268 E Flores, Noelle	12	Blood Spatter Analysis	SWHS	Hancock
269 E Torres, Miguel	12	Liquid-Solid Interaction With Nano Coatings	WSHS	Juarez

Zoology

270 E Catino, William	7	Heads and Tails	Prsh	Sheridan
271 E Morales, Daniel	7	Which Type of Grease Attracts Ants?	Prsh	Seward
272 E Sudworth, Hannah	8	How Strong Is Humpty Dumpty?	Fulr	LaSalle
273 E Hyde, Amanda	12	Caffeine Alcohol Daphnia Heart Rate	NNWH	Chicago Math & Science

Category	Elementary			Secondary			Total			Team Projects
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Aerospace Science	1	1	2	1	0	1	2	1	3	0
Behavioral Science	3	6	9	1	15	16	4	21	25	1
Biochemistry	1	2	3	4	8	12	5	10	15	0
Botany	1	9	10	11	18	29	12	27	39	0
Chemistry	12	19	31	9	17	26	21	36	57	1
Computer Science	0	0	0	1	0	1	1	0	1	0
Earth Science	1	1	2	1	3	4	2	4	6	0
Electronics	1	0	1	1	1	2	2	1	3	0
Engineering Science	3	1	4	5	2	7	8	3	11	0
Environmental Science	4	5	9	7	14	21	11	19	30	0
Essay Competition	0	0	0	0	0	0	0	0	0	0
Health Science	4	4	8	2	8	10	6	12	18	1
Materials Science	3	3	6	2	1	3	5	4	9	1
Mathematics	0	0	0	1	1	2	1	1	2	0
Microbiology	1	2	3	8	11	19	9	13	22	0
Physics	6	6	12	15	5	20	21	11	32	0
Zoology	2	1	3	0	1	1	2	2	4	0
TOTAL ▶	43	60	103	69	105	174	112	165	277	4

Student Exhibitors

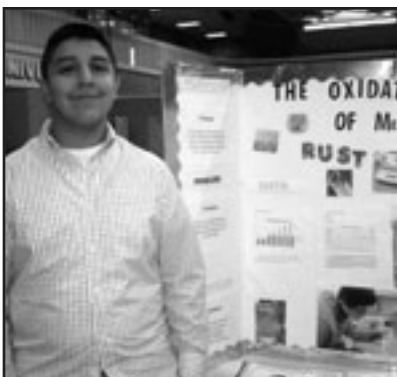
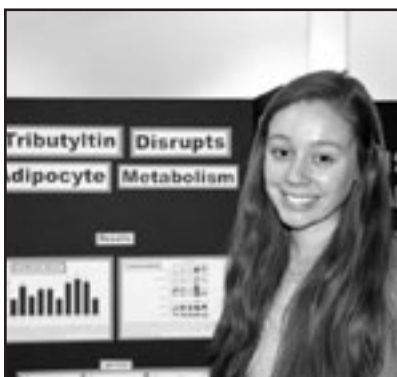
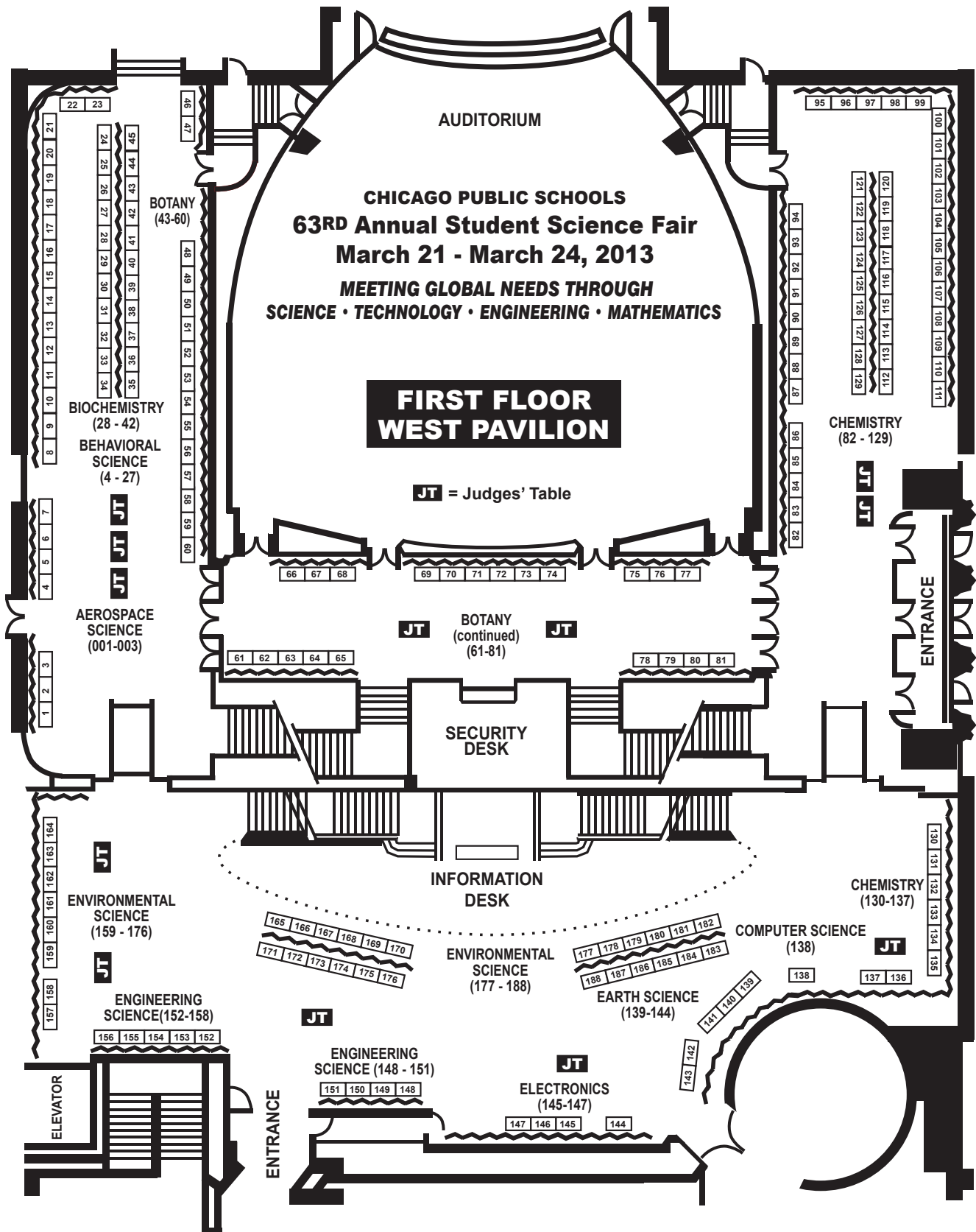
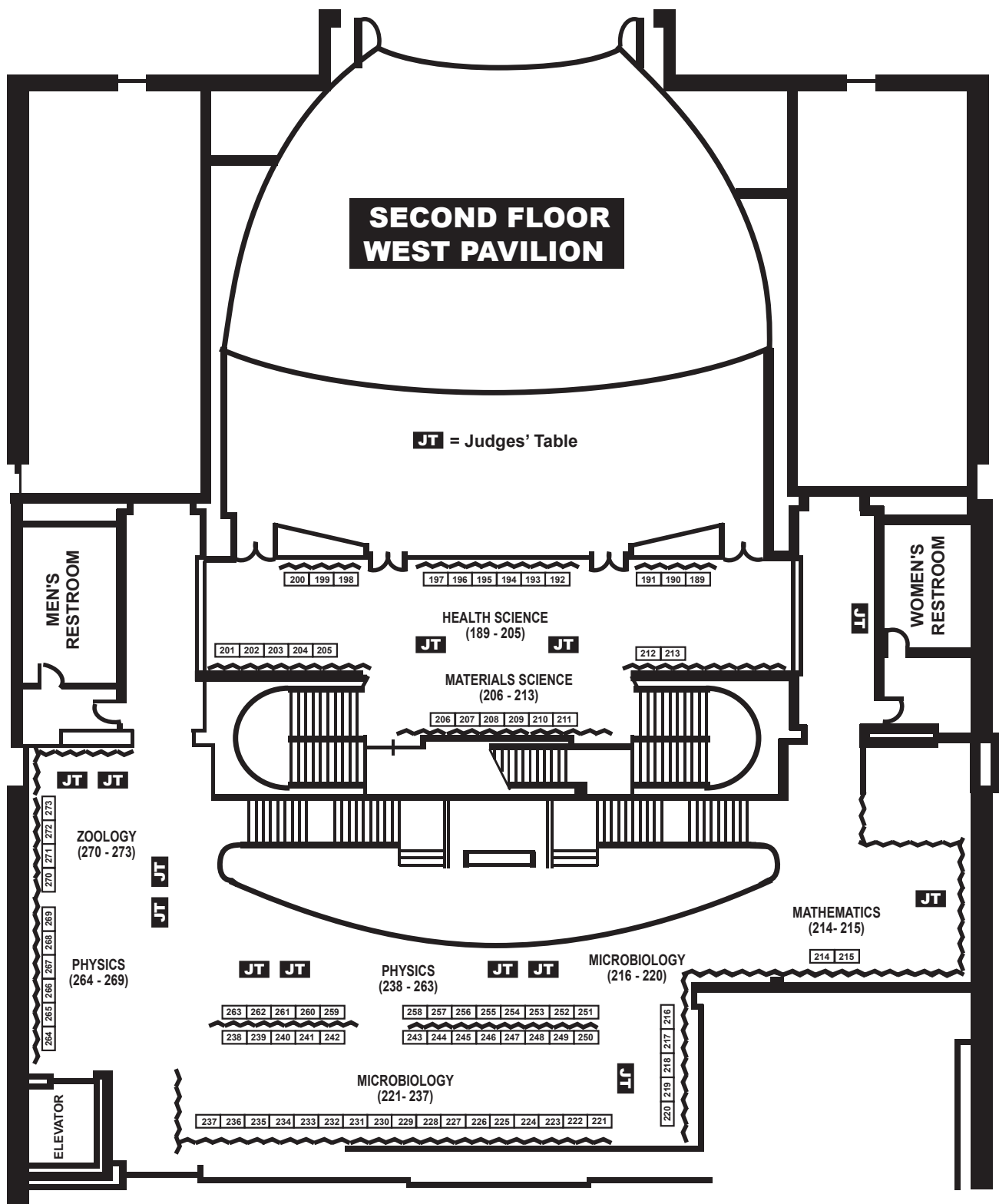


EXHIBIT JUDGING
FRIDAY





**EXHIBIT JUDGING
FRIDAY**



Student Exhibitors

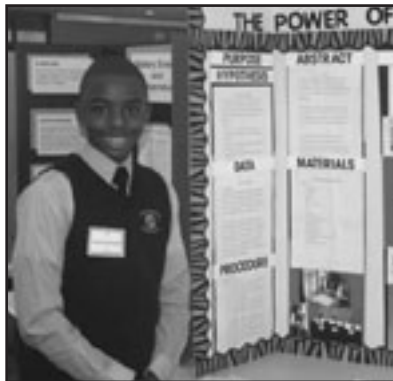


EXHIBIT JUDGING
FRIDAY



Student Exhibitors

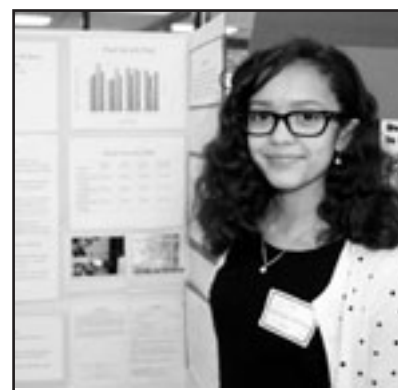
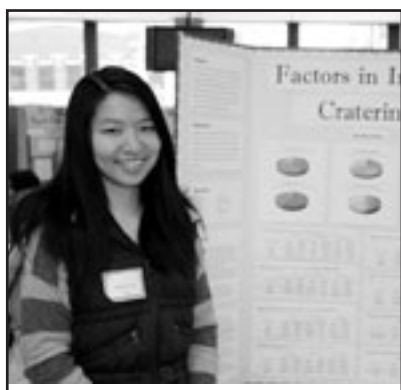
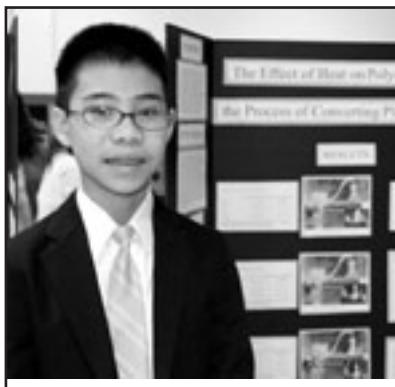


EXHIBIT JUDGING
FRIDAY



Student Exhibitors



EXHIBIT JUDGING
FRIDAY



Sixth-Grade Regional Winners Recognition Luncheon

Saturday, March 23, 2013

11:45 A.M. – Columbian Room

Welcome

Luba Johnson
Chairperson,
CPS Student Science Fair, Inc.

Comments

Melanie Wojtulewicz
Interim Executive Director
CPS Student Science Fair, Inc.

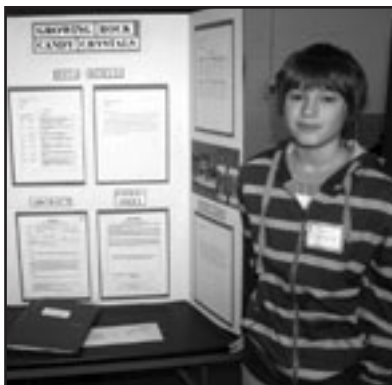
Glennie King
Chair Elect
CPS Student Science Fair, Inc.

Presentation of Awards

Luba Johnson
Melanie Wojtulewicz
Glennie King

Group Photo

Allan Reisberg
Chairperson, Digital Imaging
CPS Student Science Fair, Inc.



**PUBLIC VIEWING & 6TH GRADE
LUNCH SATURDAY**



Sixth-Grade Regional Winners

List of 2012–2013 Sixth-Grade Network Winners

Name	School	Project Title	Network
Andersen, Anna	Sayre	Which Liquid Causes Metal to Rust Fastest?	AuNL
Dizon, Abigail	Murray	Animal Manure & Decaying Food Scraps = Bio Gas	Brnm
Fajardo, Matt Nicole	Ray	The Power of the Blades	Brnm
Gomez, Gabriel	O.A. Thorp	Detecting Electrolytes in Different Drinks	OHar
Hunt, Diva	McDade	How Much Grease is in Brand Potato Chips?	Skwy
Jackson, Kimani	Heroes	Keeping It Hot!	Skwy
Johnson, Darryl	Frazier	How Do Plants Breathe?	AuNL
Johnson, Stephen	Black	Which Insulation Holds Heat the Best?	Skwy
Lawrence, Camrynn	Ashburn	Greenhouse Plants	Mdwy
Medina, Emilie	Kershaw	Shake Rock and Roll	EnGr
Nash, Susan	Ogden	Super Solar Energy: Hot Water from the Sun	Fulr
Padilla, Alondra	Peck	A Road through Germination	Mdwy
Pasowicz, Jacqueline	Haines	Soil Type and Bearing Capacity	Prsh
Rogers, Mackenzie	Alcott	Hardwoods and Weight-Bearing Capability	Fulr
Roussel, Megan	Black	Which Fabric Holds the Heat?	Skwy
Solano, Ricardo and Ronek, Gaige	Logandale	The Best Fabric for Non-Flammable Solution	Fulr
Wasielewski, Scott	Grissom	Growing Rock Candy Crystals	LCal
Wright, Ashley	Poe	Crystals	LCal



PUBLIC VIEWING & 6TH GRADE
LUNCH SATURDAY

Awards Convocation

Sunday, March 24, 2013

1:00 P.M. – Auditorium

Pledge of Allegiance

National Anthem

Greetings Luba Johnson
Chairperson, CPS Student Science Fair, Inc.

Welcome Nicole Kowrach
*Director of Teaching and Learning
 Museum of Science and Industry*

Remarks Leslie Hairston
*Alderman, 5th Ward
 City of Chicago*

Sylvia Nelson Jordan
Manager, CPS Academic Competitions

Christian Greer
*President, CPS Student Science Fair, Inc.
 Board of Directors*

Awards Presentation Linda Carter
*Chairperson, Special Awards and Tours
 Committee*

- *Special Awards*
- *Military Awards*
- *Special Tour Awards*

Winners Recognized by Nicole Kowrach
Alderman Hairston
Christian Greer
Luba Jonson

**Recognition of
 Symposium Winners Nina Hike-Teague**
Chairperson, Symposium Committee

**Illinois Junior Academy
 of Science (IJAS) Awards Anne Marie Sherry**
Chairperson, IJAS Committee

**International Science
 and Engineering Fair
 (ISEF) Awards Luba Johnson**
Chairperson, CPS Student Science Fair, Inc.

Closing Remarks Luba Johnson
Chairperson, CPS Student Science Fair, Inc.





Special Awards

A variety of incentives are provided by individuals, industry, educational organizations and professional societies. The contributors listed below and the representatives serving as judges, award cash awards, certificates of merit, invitations to attend special recognition programs, luncheons and opportunities in real laboratory settings. Some Special Award sponsors have dedicated special recognition to the Teacher Sponsors that encourage these exhibitors to stretch to reach their potential.

At the Awards Convocation on Sunday, March 24, 2013, students whose projects are selected by Special Awards judges will be the direct recipients of these awards.

If you are interested in offering a Special Award at the next Science Fair, please contact Linda Carter, Special Awards, P.O. Box 803945, Chicago, IL 60680 or by email at lacarter2010@aol.com.

On behalf of all the young scientists, a special THANK YOU is extended to the contributors of Special Awards.

Achievement Award

Two \$50.00 cash awards to first time Elementary or High School City Science Fair exhibitors

- Rita Nelson
- RyAnn Nelson -Jaiyesimi

Adler Planetarium

Two family passes to Adler Planetarium to exhibitors showing promise in space science and two certificates of participation in Astro-Science workshop for outstanding high school exhibitor

- Heidi Schmitt

Alpha Kappa Alpha Sorority, Inc.

Four \$50 cash award for a 7th grade female exhibitor in health

- Phi Kappa Omega Chapter

American Surface and Electroplaters Finishers Honors Award

An invitation to ASEF May dinner where one \$1,000, one \$500 and one \$250 cash awards will be awarded

- ASEF Chicago Branch, Andrew Gruda

A.S.M International, Chicago Regional Chapter

One \$150 cash award to outstanding project in Engineering Science or Materials Science

- ASM Chicago Chapter, Michael Danko

American Meteorological Society

Two certificates to Meteorology exhibitors

- Society for Science and the Public

American Nuclear Society-Chicago Section

One \$100 cash award, one \$50 cash award, and one \$25 cash award with recognition books and certificates for each school to exhibitors promoting peaceful uses of nuclear energy.

- Roger W. Tilbrook

American Psychological Association

One certificate to an outstanding psychology exhibitor in Behavioral Science

- Society for Science and the Public

American Science & Surplus

One \$75 American Science and Surplus gift-certificate for the most original and creative exhibit.

- Amanda Hermann

Anti-Cruelty Society

One \$75 cash award to an outstanding exhibitor demonstrating consideration for animals

- Tammie Bouschor

Association for Women Geoscientists

One certificate to an exemplary female exhibitor in Earth or Planetary Science

- Society for Science and the Public

Association of Women in Science (Chicago)

Five \$50 cash awards to promising young female exhibitors showing promise in scientific research

- Kelly Collier-Metzinger

Astronaut Joan Higginbotham Award

One \$300 cash award to a student project in Aerospace, Astronomy, Engineering or Physics

- Melanie R. Wojtulewicz

Bartley Family Award

One \$50 cash award to an outstanding microbiology exhibitor

- Jeanette Bartley

Baxter Healthcare Women In Science and Engineering

Five \$50 American Express gift cards to promising young female exhibitors showing promise in scientific research

- Paroo Uppal
- Maoyra Knight

Brenlen Associates

One \$100 cash award to an outstanding middle school exhibitor

- Brenda J. Harris

Broadcom MASTERS

A special invitation to the top 10% of exhibiting Middle grade exhibitors to qualify for Middle school Science & Engineering Fair

- Society for Science and the Public

Camacho Math and Science Award

Special recognition to minority female middle grades exhibitors

- Lena Camacho



Special Awards

CETMC (Chicago Elementary Teachers of Math Club)

Special acknowledgement for project that best demonstrates good use of mathematics

- Carol Miller
- Jim Oehler

CH2MHILL Outstanding Achievement Award

Five \$50 cash awards to outstanding minority exhibitors

- Clayton Hill
- Melvin Slater

Charles Braxton Brown Jr. Award of Excellence

One \$50 cash award to a minority student exhibiting excellent use of technology.

- Vincent C. Brown

Charles Braxton Brown Jr. Award of Ingenuity

One \$50 cash award to a minority students exhibiting ingenuity in experimentation

- Vincent C. Brown

Cheryl Deese Science Award

Three \$50 cash awards to exemplary exhibitors

- Cheryl Deese

Chicago Herpetological Society

A free entry pass to the 20th Annual ReptileFest for each exhibitor

- Andy Sagan

Chicago Intellectual Property Alliance (CIPA)

Three "Most Inventive" awards: First place - assistance with filing a patent application, a \$500 cash award, and a plaque; Second place - a \$300 cash award and a plaque; Third place - a \$200 cash award and a plaque

- Mike Harlin, Esq.
- Sarah Biggs

Chicago Principals and Administrators Association

Five \$100 Target Gift cards to high school exhibitors and five \$100 Target Gift cards to elementary exhibitors in Behavioral Science, Biochemistry, Chemistry, Environmental Science, Mathematics, or Microbiology

- Clarice Berry
- Walter Pilditch

Chicago Zoological Society - Brookfield Zoo

One family membership to exhibitor demonstrating forward thinking in conservation or animal welfare

Jennifer Marvel-Gillono

Christine M. Krupa Award

One \$250 cash award to an outstanding Mathematics exhibitor

- Christine Krupa

Columbia College Cohort Inquiry Award

Two \$25 gift cards to outstanding inquiry exhibits

- Cohort 21 Pre-service Teachers

Copper's Encouragement Award

One \$100 cash award to an outstanding minority female exhibitor

- Elizabeth Copper

D. Lewis Future Science Star Award

Two \$50 cash awards to inspiring exhibitors

- Deborah Lewis

Delta Sigma Theta Sorority Inc. – Chicago Alumnae Chapter

Four \$50 cash awards to outstanding exhibitors

- Ruby S. Parnell-Booth

Department of Mathematics & Science-Chicago Public Schools

A 2013 souvenir lanyard to each exhibitor

- Department of Mathematics and Science

Dr. Allen L. Wright Orthopedic Surgeon Award

One \$50 gift card to an outstanding middle school exhibitor

- Leslie Swain-Store

Dr. Janice M. Buckley Perseverance Award

Two \$25 cash awards to 7th grade exhibitors who overcame obstacles to compete

- Linda A. Carter

Earth and Environmental Award

A \$300 cash award distributed among exemplary exhibitors in Earth and Environmental categories

- Gary L. Cygan
- David M. Petrovski

Executive Director's Award

One \$200 cash award to an exemplary female in any category of Biological Science

- Melanie R. Wojtulewicz

Ezell Smith Award

Special recognition award for exhibit related to food

- Edna Smith

FBC Memorial Foundation for Assisted Living Award

One \$50 cash award to an exhibitor working on wellness

- First Baptist Church of Chicago
- Velma Chiles

Frey Scientific

Five \$50 Frey gift certificates for items from the on-line catalog to outstanding middle school exhibitors and a \$50 gift certificate to each of their Teacher Sponsors

- Vince Zaccardi

GE Energy Services Award

One \$500, one \$300 and one \$200 cash awards to exemplary projects related to renewable energy

- Andrew Leon

Gerald Rudnick Technology Award

One \$50 cash award to an exhibitor that best demonstrates the most innovative use of technology

- Gerald Rudnick

Granular Materials Award

One \$100 cash award to an exhibitor using granular materials

- Paul J. Dolan Jr.



Special Awards

Gonzalez, Wahlberg, James Scientific Method Award

Four \$50 cash awards to exhibitors that represents the best use of the scientific method

- *Eddie Marie Gonzalez*

Hambrick Opportunities

Two \$50 cash awards to exemplary artistic designs and innovation exhibitors

- *Arlene Hambrick*

Hayden-McNeil Speciality Product Award

Classroom set of student lab notebooks for exhibitors' sponsor teacher in chemistry, organic chemistry, life science, or physics

- *Jennifer Hayman*

Herbert Hoover Young Engineer Award

One certificate and medallion to an exhibitor showing a grasp of engineering fundamentals

- *Society for Science and the Public*

Hike Emerging Women Scientist Award

One \$100 cash award to female exhibitor researching in Biotechnology, DNA Profiling, Gel Electrophoresis or GMO

- *Nina Hike-Teague*

IJAS State Exposition

Accommodations for 75 exhibitors and symposium presenters to attend the IJAS state exposition

- *Karen Edmondson*

IJAS Essay Finalists

Elementary Division - One \$250, one \$125, one \$75 and one \$50 cash award to elementary writers; High School Division - one \$250, one \$125, one \$75 and one \$50 cash award to high school writers; and \$25 to all other participants

- *Nina Hike-Teague*

Illinois Speech-Language-Hearing Association

Two \$100 cash awards to projects related to communication disorders and sciences

- *Denise Prohaska*
- *Cynthia Keillor*

Intel Excellence in Computer Science

Special qualifying application for the top computer science high school exhibitor

- *Society for Science and the Public*

ISEF

Trip for four delegates to International Science and Engineering Fair and recognition to two alternates

- *Alicia Choi*

I-SWEEP

Special qualifying application to an outstanding sustainability project

- *Ismail Ayildiz*

Janice Lemar Brown Women In Mathematics Award

One \$50 cash award to an outstanding minority mathematics exhibitor

- *Vivian L. Brown*

John W. Swain Pharmacist / Entrepreneur

One \$50 gift card to exemplary exhibitor

- *Leslie Swain-Store*

Kathryn Peecher Memorial Award

Two \$50 cash awards to inspiring elementary exhibitors

- *Vickie Jackson*
- *Linda Carter*
- *Marie Clouston*
- *Amanda Scampini*

Leap Learning Systems Recognition

Special qualifying invitation to attend Speech & Language training session

- *Michael Levesque*

Linnae Wise Bryant Science Award

One \$50 cash award to an outstanding minority exhibitor

- *Linnae Wise Bryant*
- *Katrina Washington*

Local 143 School Engineers Science Honors

Twenty \$100 cash awards to outstanding exhibitors

- *Robert Hellberg*
- *Local 143 CPS Engineers*

LoEva Reid

Two \$50 cash award to elementary exhibitor

- *Leon Williams*
- *Fred Williams*

Luba Johnson Science Award

Two \$50 cash awards to outstanding exhibitors
A 2013 souvenir wristband to each exhibitor

- *Luba Johnson*

Luis Alvarez Capilla Award

One \$50 cash award to outstanding exhibitors in the area of agriculture

- *Elizabeth Alvarez*

Lula Mae Puritt

Two \$50 cash awards to exemplary exhibitor

- *Fred Williams*
- *Leon Williams*

Marie Sklodowska Curie Award

Four \$25 Gift Cards to outstanding projects in physics and chemistry

- *Stephanie Dubielak*
- *Barbara Dubielak-Wood*

MARS Snackfood US

A MARS chocolate treat to each exhibitor and four \$50 cash awards to outstanding exhibitors

- *Mike Calderon*
- *Mackenzie Lawrence*

Mary J. & Walter H. McKinney Award

Two \$50 cash awards to exemplary exhibitors

- *Gina L. Grant*



Special Awards

McGraw Hill School Education Group

Three \$50 cash awards to exemplary exhibitors demonstrating Common Core Skills

• Ardena White Amos

Metropolitan Water Reclamation District

One Superior Award, 25 letters of commendation, an invitation to the Commissioner's Award Ceremony, and a boat tour of the Chicago River and Lake Michigan with lunch on board for exhibitors and parents

• Mary Carroll

Morton Suggestion Co.

A 2013 souvenir pencil to each exhibitor

Mu Alpha Theta

One certificate to a high school exhibitor creatively using modern mathematics

• Society for Science and the Public

Murff Mathematical Merit Award

Two \$50 cash awards to outstanding exhibitors

• Ricky Murff
• Vivian Murff

Museum of Science and Industry

A MSI family membership to exhibitors chosen to go to IJAS

• Julie Boyk

National Oceanic & Atmospheric Administration

One certificate and medallion to an exhibitor in earth conservation

• Society for Science and the Public

National Society of Professional Engineers

One certificate and lapel pin to an exhibitor demonstrating innovative engineering

• Society for Science and the Public

National Technical Association

One \$50 cash award to an outstanding exhibitor

• Cynthia Slater
• Melvin Slater

Nelson Sports Memorial Award

One \$50 cash award to sports related exhibit

• Susan Nelson

Omega Psi Phi Fraternity Inc. - Iota Chapter

Four \$50 cash awards to outstanding exhibitors

• Melvin Slater • Ron Wright
• Melvin Hargrett • Andre Garner
• Clayton Harris • Jerrold DeRon

Optical Society

One \$100 cash award to an outstanding exhibitor for best use of optics

• George Magerl • Al Brunsting
• Fred Foss

Peggy Notebaert Nature Museum

A Family membership to PNNM and a Nature Museum Gift Basket to an exemplary environmental science exhibitor

• Barb Powell

Peña Mathematical Excellence Award

Two \$65 cash awards to one middle grade and one high school exhibitor exhibiting the best use of collecting, analyzing and reporting data

• Jorge Peña
• Natasha Buckner-Peña

Radvila Physical Science Award

One \$50 cash award to a Physical Science exhibitor

• Nijole Mackevicius

Ricoh Sustainable Development Award

Special recognition to outstanding environmental exhibitors

• Society for Science and the Public

Rochelle Hawes Bolton - Award of Excellence

Four \$25 cash awards to exemplary exhibitors in the area of Health Science, Material Science, Botany, or Zoology and twenty certificates to outstanding exhibitors

• Deborah Hawes

Science Enterprise Award

Six \$50 cash award to exhibitor showing initiative and determination

• Gary Morrissey

Scientific Merit Award

Two \$50 cash awards to exemplary high school exhibitors in behavioral science, botany, microbiology, environmental, health science, biochemistry or zoology

• RyAnn Nelson-Jaiyesimi
• Rita Nelson

Scope Shoppe Inc.

One field microscope with case for exhibitor in Biology or Environmental Science

• Pat Schlinder

Shirley Davis-Morrissey Memorial Teacher Award

Two \$250 cash awards and Resource Tool Kit awarded to teacher-sponsors who have demonstrated outstanding leadership and educational mentorship to student exhibitors

• Gary Morrissey
• Brittany Davis

Slater Association

One \$50 cash award to an outstanding exhibitor

• Cynthia Slater
• Melvin Slater

Society for In Vitro Biology

Recognition for outstanding 11th grade student exhibiting in areas of plant or animal in vitro biology or tissue culture

• Society for Science and the Public

Society for Technical Communication

Chicago Chapter

Special recognition to exhibitor for excellence in visual communication to an exhibitor



Special Awards

Society of Tribologists and Lubricating Engineers

Special recognition to lubrication related exhibitors

Somera Alumni Award

One \$50 cash award to an outstanding exhibitor

- Anna Lisa Somera

SPIE-- The Intl Society for Optical Engineering

One \$200 1st place, One \$125 2nd place, One \$75 cash awards with award letters from Optical Society of Chicago to outstanding exhibitors

- George Magerl
- John M. Madigan, Jr.

State Farm Insurance Co. Award

One \$50 cash award to an exemplary exhibitor

- Cynthia Slater
- Melvin Slater

Stockholm Junior Water Prize

Three certificates to exemplary high school water related exhibits and an invitation to participate in the Stockholm Junior Water State Competition

- Society for Science and the Public

Susan Engel Award of Excellence

One \$50 cash award to a high school exhibitor in Health or Medical Sciences

- Susan Engel

Symposium Award

One first place cash award of \$250, one second place cash award of \$125, one third place cash award of \$75, one fourth place cash award of \$50 and thirty participation cash awards of \$25 to Symposium presenters

- Nina Hike-Teague

Teach Our Children, Inc. Tyrone K. Smith Memoriam Award

One \$100 cash award to an outstanding electronics exhibitor

- Tracy Raoul

The American Association of Zookeepers, Lincoln Park Chapter

One \$50 cash award to an exemplary electronics exhibitor

- Susan Moy

The Field Museum

A one year family membership to an exemplary exhibitor

- Anne Marie Fayen
- The Education Department of The Field Museum

The National Sorority of Phi Delta Kappa, Inc.

Two \$50 cash awards to exemplary chemistry exhibitors

- Katrena Washington

United States Air Force

Special Recognition to outstanding exhibitors

United States Army

A certificate of achievement and tangible award to exemplary exhibitors

- Society for Science and the Public

US Metric Association

A certificate to a high school exhibit that involves quantitative measures which best uses the SI metric system

- Society for Science and the Public

United States Navy

A certificate of achievement to outstanding exhibitors

- Society for Science and the Public

University of Illinois at Chicago – College of Engineering

Five \$250 cash awards to outstanding engineering exhibitors

- Dale Reed

University of Illinois at Chicago - Computer Science Department

One Nexus 7 Tablet to an exhibitor with outstanding use of Computer Science

- Dale Reed
- Bob Sloan
- Peter Nelson

UOP, A Honeywell Company

Eight cash awards: One Gold award of \$150; two Silver award of \$100; and five Bronze awards of \$50 each to be awarded in the areas of chemistry, physics and environmental sciences

- Willie Morrisette
- John Kulach
- Douglas Nafis

Visions Blu Institute

One \$50 gift card to an exhibitor who uses digital media effectively

- Karon Hamlet
- Linda A. Carter

Wangari Maathai Memorial Award

Two \$50 gift cards for exemplary projects with potential for positive environmental impact

- Wendy Jackson

Wild About Nature Award

Three certificates with congratulatory letter and invitation to Forest Preserve Bd. of Commissioner's meeting

- Judges: Forest Preserve District -Cook County
- James Chelsvig

Wilson Family Award

One \$100 Visa gift card to an outstanding male exhibitor and one \$50 Visa gift card to an outstanding female 7th grade exhibitor

- Lorraine B. Wilson

Women's Health Research Institute at Northwestern University

One \$50 cash award and one day working along side a scientist for most innovative middle school projects impacting women's health

- Cathryn Smeyers

World Book Encyclopedia Inc.

A copy of World Book Science Year 2013 to all exhibitors

- Mark Willy
- Victor Mazzeo

Special Awards

Yale Science & Engineering Association

One certificate to an outstanding 11th grade exhibitor in Computer Science, Engineering, Physics, or Chemistry

• *Society for Science and the Public*

Young Scientist Award

Two \$50 cash awards to High School students for their scientific research endeavors in biochemistry, botany, chemistry, environmental science, health science, zoology or microbiology

• *RyAnn Nelson-Jaiyesimi*

• *Rita Nelson*





CPS Student Science Fair Special Programs

Research Grants – money for student research

Mini-grants are available to students in Grades 7 through 12 for the purpose of providing financial aid while conducting research projects. Students may apply for renewable grants of up to \$100 per semester. These funds may be used for the purchase of materials and equipment not available in their schools, but which are needed to complete the student's experimental research. Students may apply to the Research Grants Committee of CPS Student Science Fair, Inc.

Maxi-grants are awarded to students in Grades 9 through 12 and provide financial support in amounts of \$101–\$500. This grant is available to students who have already demonstrated excellence in science projects and are in need of more expensive materials and equipment in order to continue their research. Students must apply to the Research Grants Committee of CPS Student Science Fair, Inc. and, if accepted, must present their work at an interview with members of this committee. An application can be found in the current *Science Fair Handbook* and on the Internet at: www.cpsscifair.org.

Advise-a-Student – professional advice for student research

The Advise-a-Student program is designed to provide technical advice to students in Grades 7 through 12 who are working on a research project. Advice is available only after students exhaust school resources and have thoroughly researched their topic in the library. In order to discuss and obtain assistance in improving their projects, students must apply for a research advisor by submitting an application to the Advise-A-Student Committee of CPS Student Science Fair, Inc. An application can be found in the current *Science Fair Handbook* and on the Internet at: www.cpsscifair.org.

Science Fair Central – workshops for student research

Northeastern Illinois University and Chicago State University opened labs in their science buildings on Saturday mornings this past September and October and invited high school and elementary school students, teachers, parents, and mentors to the campus. NEIU and CSU provided professional scientists, in-

cluding university faculty and staff, to advise and assist the students. In some cases lab set-up space and materials were made available. More details will follow in a mailing to teachers at the beginning of the next school year. Please contact Paul Dolan, Professor of Physics, Northeastern Illinois University at: P-Dolan@neiu.edu or 773-442-5785.

Science Clubs – after school help from teachers for student research

ComEd, An Exelon Company has continued to provide funding for 20 high school science clubs this school year. The primary objective is to compensate teacher-sponsors for guiding students as they developed science fair projects. Club sponsors receive money to purchase supplies, materials, and/or equipment for conducting club activities. Peoples Gas provided funding for 16 middle school science clubs this school year. In addition to stipends, teachers were able to help students collect data by using Vernier *LabQuest*, which brought more technology into the classroom. These clubs also have engineers from Peoples Gas who volunteer to advise club members on their science research.

Scholarships – college funds for science fair alumni

In order to support the CPS Student Science Fair and to encourage students to consider careers in science, several local universities have provided renewable tuition waiver scholarships. In addition, monetary contributions from various sources in the business community have been volunteered as well as solicited to provide additional scholarships. Any prospective Chicago public high school graduate who has participated in at least one science fair (during Grades 7–12) at the regional or city level and/or the symposium is eligible to apply for a scholarship. The Scholarship Committee, comprising Science Fair representatives, business and education, selects scholarship recipients on the basis of participation in the Chicago Public Schools Science Fair, scholastic achievement, future goals, and personal interviews. Since 1956, CPS Student Science Fair Inc. has awarded 1,979 scholarships valued at \$2,919,402 to students from 72 Chicago public high schools.



2012 Scholarship Winners

Any prospective June CPS high school graduate who has participated in CPS science fairs (during grades 7-12) at an area or the city level and/or the symposium/essay competition; and who is planning to major in science, mathematics, engineering, or computer science was eligible to apply for a scholarship. The Scholarship Committee, representing business and education, selects scholarship recipients on the basis of participation in the Chicago Public Schools Science Fair, scholastic achievement, future goals, and personal interviews.

The June 2012 high school graduates listed below were selected to receive financial scholarships by the Chicago Public Schools Student Science Fair, Inc. Scholarship Committee.

Since 1956, Student Science Fair, Inc. has awarded 1,979 scholarships, valued at \$2,919,402 to students from 72 Chicago public high schools.

Key:

Student/High School
College Destination
College Major
Sponsor/Amount

Oluwamide Agunloye/Lane Tech
University of Chicago
Biological Sciences/Physics
University of Chicago Tuition Waiver/
\$2,000 Yr - 4-Yr Renewable

Nida Ahmed/Lake View
University of Illinois at Chicago
Dentistry
Takeda Global Research & Development Center,
Inc./\$1,500 & Donald & Helen Edwards/\$1,500

Mark Banik/Chicago Ag
Joliet Junior College
Physics/Agriculture
BP America Inc./\$3,000 & CPS Student Science
Fair, Inc./\$2,000

Philippe Chlenski/Lincoln Park
Deep Springs College
Biochemical Research
Motorola Foundation/\$3,000
& CPS Student Science Fair, Inc./\$2,000

Beth Cholst/Payton CP
Michigan Institute of Technology
Mechanical Engineering
Harold Keihm Memorial/\$2,500
& K. Zdunek & M. Memhardt/\$500

Elad Deiss-Yehiely/Lincoln Park
Northwestern University
Biomedical Engineering
Takeda Global Research & Development Center,
Inc./\$5,000

Diamond Dickerson/Julian
University of Missouri
Biology/Pre-Medicine
Geri Blakley Memorial/\$1,500

Sarra Ghezali/Amundsen
Denison University
Pre-Medicine/Astronomy
The Chicago Community Trust/\$1,000
& Dolores & Henry Rosenbaum/\$500

Julia Iourinets/Lincoln Park
University of Rochester
Neuroscience
CPS Combined Charities/\$1,000

Khristina Jouk/Lane Tech
University of Illinois at Chicago
Biological Sciences
Barbara McCormick/\$1,000 & SSF Alumni
Association/\$500

Saad Khan/Lane Tech
University of Chicago
Biochemistry/Neuroscience
Takeda Global Research & Development Center,
Inc./\$10,000

Aleksandra Lemiesz/King CP
University of Illinois at Chicago
Pre-Medicine/Dentistry
Takeda Global Research & Development Center,
Inc./\$3,000

Aaron Litoff/Lincoln Park
Northwestern University
Chemical Engineering
ComEd, An Exelon Company/\$3,000
& CPS Student Science Fair, Inc./\$2,000



2012 Scholarship Winners

Andriy Lozovyy/Von Steuben
Illinois Institute of Technology
Chemical Engineering
Harold Keihm Memorial/\$2,500

LaDonna Miller/King CP
Augustana College
Biology/Chemistry/Pharmacy
Ray Readus Memorial & Chicago Teachers Union/\$1,000
& Society of Retired Principals & Superintendents/\$500

Afolayan Oladeji/Lincoln Park
Vanderbilt University
Molecular Biology
Takeda Global Research & Development Center, Inc./\$5,000

Kashif Osmani/Northside CP
University of Illinois at Chicago
Biology/Pre-Medicine
University of Illinois at Chicago Tuition Waiver/\$12,000 Yr - 4-Yr Renewable

Justice Reed/Northside CP
Northwestern University
Chemical Engineering
Blum-Kovler Foundation/\$1,000

Hannah Reiman/Kenwood
Loyola University Chicago
Secondary Education/Math
Loyola University Chicago Tuition Waiver/\$2,000 Yr - 4-Yr Renewable

Maria Rodriguez/Phoenix MA
North Central College
Elementary Education/Science
CPS Student Science Fair, Inc./\$1,500

Valeria Rosero/Kelvyn Park
Northwestern University
Anthropology
Tom Maloney Memorial/\$1,000

Krystina Scott/King CP
University of Miami
Computer Science
Allen Nelson Memorial/\$1,000

Miriam Silva-Moreno/Lake View
University of Illinois at Chicago
Biology/Pre-Medicine
Takeda Global Research & Development Center, Inc./\$1,500 & Barbara Bulmash Memorial/\$1,500

Margaret Tran/Lane Tech
University of Illinois
Biology/Chemical Engineering
Takeda Global Research & Development Center, Inc./\$4,000

Johnny Villagomez/Phoenix MA
US Military Academy-West Point
Chemical Engineering
Ira Sax Memorial/\$1,000 & Arthur Gartzman Memorial/\$500

Fiddia Zahra/Amundsen
DePaul University
Biochemistry/Pre-Medicine
DePaul Tuition Waiver/\$8,000 Yr - 4-Yr Renewable

2012 Senior Recognition Awards/ \$500 Cash Award

- **Mohammad Alawawdeh**/Amundsen
- **Jonathan Du**/Amundsen
- **Edneron Jean-Baptiste**/New Millennium
- **Muhammad Khan**/Amundsen
- **Erica Knox**/Whitney Young
- **Kiara Reyes**/World Language
- **Cheny Zhao**/Lincoln Park

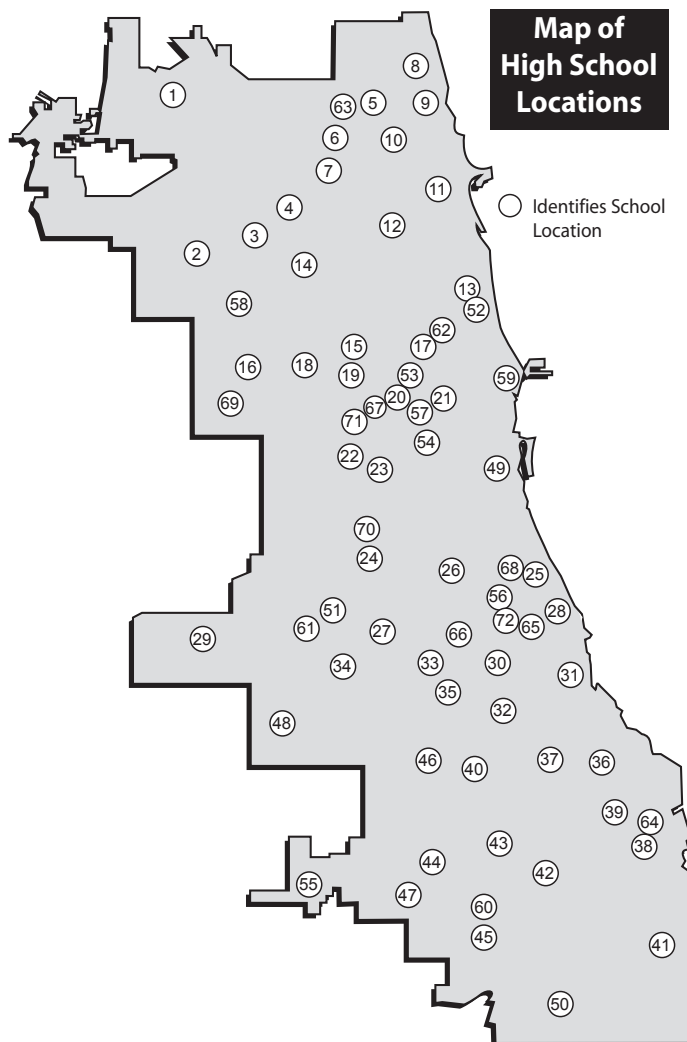


2012 Scholarship Winners

Number of Scholarships Awarded (1956 – 2012)

Map no. School... Scholarships

10 Amundsen 29	14 Kelvyn Park 13
16 Austin 8	29 Kennedy 14
64 BEST 1	28 Kenwood 16
57 Best Practice 1	25 King CP 6
48 Bogan 28	11 Lake View 12
38 Bowen 15	12 Lane 110
68 Bronzeville..... 1	13 Lincoln Park 118
60 Brooks 3	33 Lindblom 21
46 Calumet 4	19 Marshall 2
50 Carver 6	71 Manley..... 1
69 Chicago Academy 1	05 Mather 28
55 Chicago Ag. Sci..... 42	47 Morgan Park 21
39 Chicago Voc. 7	52 Near North 2
15 Clemente 1	63 Northside CP 13
42 Corliss 11	62 Payton 14
20 Crane 1	67 Phoenix Military..... 4
53 Cregier 2	58 Prosser 2
51 Curie 14	32 Robeson 2
49 Dunbar 1	07 Roosevelt 8
56 DuSable 3	04 Schurz 21
65 Dyett 1	09 Senn 24
30 Englewood 4	40 Simeon 3
22 Farragut 4	36 South Shore 7
45 Fenger 14	02 Steinmetz 13
18 Flower 1	08 Sullivan 9
03 Foreman 24	01 Taft 19
27 Gage Park 4	26 Tilden 19
61 Hancock 4	06 Von Steuben 52
43 Harlan 5	41 Washington 30
35 Harper 4	17 Wells 7
23 Harrison 4	21 Whitney Young 43
37 Hirsch 5	72 Williams Medical..... 2
66 Hope 2	70 World Language 2
34 Hubbard 16	
31 Hyde Park 16	
59 Jones 4	
54 Juarez 3	
44 Julian 5	
24 Kelly 11	





ComEd High School Science Club Program 2012-2013

The following high schools have approved after-school science clubs sponsored by ComEd, An Exelon Company. Each club is provided with a stipend for the club sponsor (or shared among two or more club co-sponsors) and funds for instructional supplies. The primary objective of the ComEd Science Club Program is to provide extended science experiences and guidance to students interested in developing science fair projects.

Amundsen

Eman Sarhan

Corliss

Jamiu Sokoya

Curie

Carlos Guerrero

Jennifer Patush

Goodie STEM Academy

Tony Peiry

Theresa D. Zoga-Borg

Hancock

Stephen Farr

Erin Neidt

Harper

Kara Weisenburger

John Hope

College Prep

Mintah Olayinka

King College Prep

Alicia Choi

Julian

Monique Murray

Nia Baker

Lake View

Vijayanti Joshi

Lane Tech

Allison Krakowski

Marie Benas

Lindblom

Elizabeth Copper

RyAnn Nelson-Jaiyesimi

Payton

Walter Kinderman

Angela Hassan

Phoenix

Beatrice Jaji

Sandra Tobias

Whitney Young

Lynne Muhammad

Williams Prep

Stacie Chana





Peoples Gas Middle School Science Club Program

The following elementary schools have approved after-school science clubs sponsored by Peoples Gas. Each club was provided with a stipend for the club sponsor and incorporated technology using Vernier *LabQuest* in collecting data for analysis. Giving students the knowledge and experience of using technology helps to inspire ideas for independent research projects. Peoples Gas engineers volunteered to lend their expertise to club members on their projects. The primary objectives of the Peoples Gas Science Club Program was to provide guidance to students interested in developing science fair projects and using *LabQuest* for data collection.

Robert A. Black Magnet

Clintonia McNeal

Belmont-Cragin Elementary

Jason Pitak

Carl Von Linne Elementary

Robert Troher

Rachel Carson Elementary

Christina Pawelec

G. R. Clark Elementary

Yolanda Smith

CIC Longwood Charter

Lutha Maura

Dore Elementary

Roni Carter

Frazier International

Pannha Sann

Hernandez Middle School

Rosario Canizales

Keller Elem Gifted Magnet

Leslie Swain-Stone

Kozminski Elementary

Carole Weaver

Seward Elementary

Lorel Madden

Shields Middle

Shelia Lane

Trumbull Elementary

Arlene Garcia

Vanderpoel Magnet

William Ness

Waters Elementary

Margaret Ballasch

Peoples Gas Engineers

Roberto Arroyo

Jose Baez

Heather Beall

Laura Budzinski

Scott Davis

Eric Frank

Michael Freeman

Alberto Jara

Joe Kaczmariski

Tim Liace

Jim McNelis

Harsh Mehta

Julie Maupin

Miten Patel

Brian Rafferty

Aaron Ward

Michael Weyenberg

Scott Zanoni

Mary H. Houpt

Manager, Community

Partnerships

Richard Turner,

Peoples Gas, retired

SPECIAL PROGRAMS



Peoples Gas Engineers and Participating Teachers



Science Fair Volunteers

On the following pages are the names of almost 1300 people who give of their own time and of themselves to make the CPS Student Science Fair possible. **THANK YOU!**



THANK YOU



Faces of the Student Science Fair



THANK YOU



Faces of the Student Science Fair



THANK YOU



Faces of the Student Science Fair



THANK YOU



Exhibit Judges

Each year approximately 300 judges from the scientific, academic, and business communities generously donate their time, effort, and expertise in order to objectively and professionally evaluate the most scientifically talented students from the Chicago Public Schools. Science Fair honors judges who have served for a minimum of five years and on every fifth anniversary. Judges receiving a plaque for service are invited to a special Recognition Luncheon which will be held after judging is completed.

Science Fair salutes ALL the Exhibit Judges participating in the 63rd Annual CPS Student Science Fair.

Thank you and congratulations for a job well done!

Paula Adams

A T & T

James Aderhold

Gas Technology Institute

Raul Africa

Chaitanya Aggarwal

University of Illinois at Chicago

Aisha Ahmad

University of Chicago

Annie Beryl Akuamoah

Peoples Gas

Martin Alcorta

Argonne National Laboratory

Sameera Ali

American College of Surgeons

Syed W. Ali

ComEd/Exelon

Amanda Allsbrook

Atkins

Larry Alofs

Michael Ander

URS Corporation

Mash Angolkar

Navistar

Joshua Aumick

Peoples Gas

Gernell Austin

Austin Management Gro

Peter Austin, DDS

Oak View Dental Group

John Bagley

Independent Productions

Rosette M. Bagley, R.N.BSN

Virgil R. Baird

Underwriters Laboratories Inc.

Shawn Bairstow

Baxter Healthcare Corporation

John Baker

Ameritech Services

Christine Baldwin

Kelly Bartlett

Nalco Company

Donald Baumgartner

USEPA

Michelle Beaton

University of Chicago

Brian Beatty

Beatty & Associates, Inc.

James Belcastro

Pepsico

David Benjaih

Northeastern Illinois University

Rudy Bernath

Paul D Bierbauer

DeVry University

Pat Billing-Medel

Abbott Laboratories

Alexis Billingslea

Illinois Department of Transportation

Barbara Binns

Irene Bogdan

Richard Bogdan

TRIPL

Leticia Bombino

Peoples Gas

Patrick V. Bonsignore

Donna S. Bracey

ACH Food

Ann Brandon

Wayne Bretl

Zenith Electronics

Corporation

Pat Bridges

Peoples Gas

Abigail Buchta

Sargent & Lundy LLC

Kenneth Burke

GE Healthcare Technologies

Jonathan Cairns

Sargent & Lundy LLC

Brenda B Calfin

Abbott Laboratories

John Cannon

Peoples Energy Corporation

Chris Carpenter

Peoples Gas

Bill Carroll

Peoples Gas

Jillian Cavanaugh

Pepsico

Jennifer Chang

University of Illinois at Chicago

Peter Chen

College of DuPage

Lisa Cleveland

Sargent & Lundy LLC

Karen Cochran

Ezra Cohen

National University of Health Sciences

Brenda Coleman

Floristic Arts

CyntKaille Coleman

EGB

Paul Colombo

Peter Cooloorgeogen

Kerri Cooper

Mars Chocolate North America

Debbie Cotton

Baxter International

Elizabeth Coulson

William Coulson

THANK YOU



Exhibit Judges

James Covello

Alex Crisci

Sargent & Lundy LLC

Ernie Crofton

Peoples Gas

Carolyn Cyriaque

DePaul University

Len Czuba

Czuba Enterprises Inc.

Lynn Danford

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The following individuals, in addition to the Symposium Committee, generously volunteered their time and expertise on Saturday, January 26, 2013 to read research and essay papers submitted for evaluation. *Thank you, Symposium Readers!*

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The following scientists and engineers volunteered their time and expertise on Thursday, March 22, 2012 to act on a panel of judges to select the finalists who will participate in the Illinois Junior Academy of Science Symposium.

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- The engineers, scientists, and mathematicians who volunteered their services to help students develop their research
- Faculty and administrative personnel who organized the school science fairs which give students their first opportunity to present their research to judges
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