

2011 SCIENCE FAIR PROGRAM BOOK

SCIENCE, MATHEMATICS & TECHNOLOGY

GATEWAY TO THE FUTURE



61ST ANNUAL
CHICAGO PUBLIC SCHOOLS STUDENT SCIENCE FAIR

Museum of Science and Industry
March 24 - March 27, 2011



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ENVISION THE IMPOSSIBLE

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2011 Science Fair Program Book

**61st Annual Chicago Public Schools
Student Science Fair**

*Science, Mathematics & Technology
Gateway to the Future*

Chicago Public Schools

Chicago Public Schools Student Science Fair, Inc.

Office of Teaching and Learning-Science

Office of the Chief Executive Officer

Office of the Chief Education Officer

Museum of Science and Industry

City of Chicago

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Schedule of Events

Thursday, March 24, 2011 – Symposium – details on page 21

9:30 A.M. – 11:30 A.M.	Symposium Morning Sessions (Balcony 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 (Balcony Classrooms)

Friday, March 25, 2011 – Exhibit Judging – details on page 25

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)
11:00 A.M. – 11:30 A.M.	Opening Ceremony (West Pavilion Main Entrance)
11:30 A.M. – 12:00 P.M.	Ribbon Cutting and Exhibit Tour (West Pavilion)
11:30 A.M. – 1:30 P.M.	Judges Buffet Luncheon (C117)
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 26, 2011 – Public viewing and additional events

9:00 A.M. – 11:45 A.M.	Sixth-Grade Area 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 Area Winners Luncheon (Columbian Room) – p.41
2:00 P.M. – 3:00 P.M.	ComEd Science Club Social (Columbian Room) – <i>by invitation only</i>

Sunday, March 27, 2011 – Awards Convocation – details on page 43

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

RICHARD M. DALEY
MAYOR

PROCLAMATION

WHEREAS, from March 22 through March 27, 2011, the Chicago Public Schools, in association with the Museum of Science and Industry, will host the 61st Annual Citywide Chicago Public Schools Student Science Fair; and

WHEREAS, the 2011 Student Science Fair follows the theme *Science, Mathematics and Technology: Gateway to the Future*; and

WHEREAS, approximately 350 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 Los Angeles, California; 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, RICHARD M. DALEY, MAYOR OF THE CITY OF CHICAGO, do hereby proclaim March 22-27, 2011, 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 of these young scientists.

Dated this 19th day of January, 2011.

Mayor



Opening Ceremony

On Friday, March 18th, the 61st 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.



Matthew Blakely of Motorola Solutions Foundation commends this year's students on their research.



Ribbon cutting: Roxanne Ward, Mayor Richard M. Daley, Alderman Leslie Hairston, Barbara Eason-Watkins, Fidel Marquez, Matthew Blakely, David Mosena, Ed Scanlon



All eyes and cameras on the dignitaries at the opening ceremony.



Museum of Science and Industry President David Mosena welcomes students, judges, teachers and dignitaries to the fair.



Mayor Richard M. Daley congratulates and encourages science fair participants.



CPS Board of Education member Roxanne Ward acknowledges all exhibitors as winners for making it to the city fair.



About the Chicago Public Schools Student Science Fair (SSF)

About the Fair

We are proud to present the 61st 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, Area, and City Science Fairs

More than 12,000 students enter projects, beginning at the local school level. Local school winners exhibit at the area level. Approximately 300 winners from 21 areas 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 6 and 7, 2011, 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 Los Angeles, California, May 8-13, 2011.

Sponsors

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

The Chicago Public Schools Chief Executive Officer appoints an executive director to oversee the planning for the local school, area, and citywide science fairs. The CPS Office of Mathematics and Science is the host department for CPSSSF, employing the Citywide Science Fair Coordinator 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 Foundation, ComEd, An Exelon Company, 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 area 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 contact Pamela Sherley at CPS Student Science Fair, Inc., P.O. Box 803945, Chicago, IL 60680-3945, or email her at pdsherley@cps.k12.il.us for opportunities to contribute.



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

Congratulations and a Warm Welcome

In this year's State of the Union Address, the President said it best when he proclaimed, "It's not just the winner of the Super Bowl who deserves to be celebrated, but also the winner of the science fair!" I am therefore delighted and honored to celebrate and congratulate the 300 winners who were selected from the thousands more who participated in local and area science fairs. Your hard work and achievement inspires us and gives us confidence that the "Science, Mathematics, and Technology Gateway to the Future" is secure in your hands.

This year's citywide Fair participants will receive additional awards, including special awards from our many sponsors. Over 70 of our students will go on to the Illinois Junior Academy of Sciences State Science Fair at Urbana-Champaign in May, and four will be selected to participate in the International Science and Engineering Fair, the global science fair "Super Bowl," in Los Angeles, California. Many of our high school seniors will receive Science Fair scholarships funded by our supporters and contributors. All who participate in the Fair today are winners, and all admirably represent the best of the Chicago Public Schools.

While the Science Fair is a significant demonstration of our students' science, math, and engineering achievement, it is also a visible witness to the spirit of the Chicago community working together in the best interests of our students. It is a testimony to the strength and dedication to excellence of the Chicago Public Schools.

The Board extends its sincere thanks to all, who, in the spirit of community, contribute their time, talent, and financial support to the Science Fair. But in particular we thank the following: the current and past mayors of the City of Chicago, who continuously champion the Fair and our students; the Chicago Public Schools CEO and leadership, including John Loehr, who provide CPS resources and guidance for the Science Fair and promote participation; the Museum of Science and Industry President and CEO David Mosen and the museum staff, particularly Pamela Barry, who provide the home for the Science Fair and insure its success; and the numerous individual and corporate sponsors including ComEd/Exelon, Peoples Gas/Integrus Energy, Takeda Global Research & Development Center, Inc., and the Motorola Foundation, who provide crucially needed funding as well as talent to the Science Fair and its programs.

The Science Fair would also not be possible without the large number of volunteer judges from government, business, industry, and universities, or the legions of Chicago Public Schools teachers and administrative staff, both current and retired, who donate their time and ex-



pertise at the school, area, citywide, state, and international fairs. They all directly provide vital learning experiences to the students. Nor would it be possible without the parents, guardians, and family members who provide encouragement to our student scientists and go the extra mile to make their participation possible. Thank you for your efforts on behalf of our students.

The Board also extends sincere thanks to all those who work behind the scenes on Area Science Fair committees and as Area Science Fair Chairs, ensuring the fairs are a success for the thousands of students who participate at the local and regional levels. And finally, the Board recognizes the extraordinary efforts of Linda Carter, CPS Student Science Fair Executive Chairperson, Pamela Sherley, CPS Executive Director, and Angela Dumas, CPS Student Science Fair Citywide Coordinator. We owe you sincere and deep gratitude for your passionate commitment to our students, and your career-long dedication to science and math education.

I hope that you are able to engage as many students as possible at the Fair and appreciate their enthusiasm, dedication, and achievement. Let us celebrate and congratulate our students, as well as all the volunteers and supporters who have made the CPS Student Science Fair a success for over sixty years! Let us be inspired by their accomplishments.

Kenneth J. Zdunek, Ph.D.

Adjunct Professor, Illinois Institute of Technology
VP and CTO, Roberson and Associates, LLC
President of the Board of Directors
CPS Student Science Fair, Inc.



Greetings from ComEd, Corporate Sponsor

Greetings,

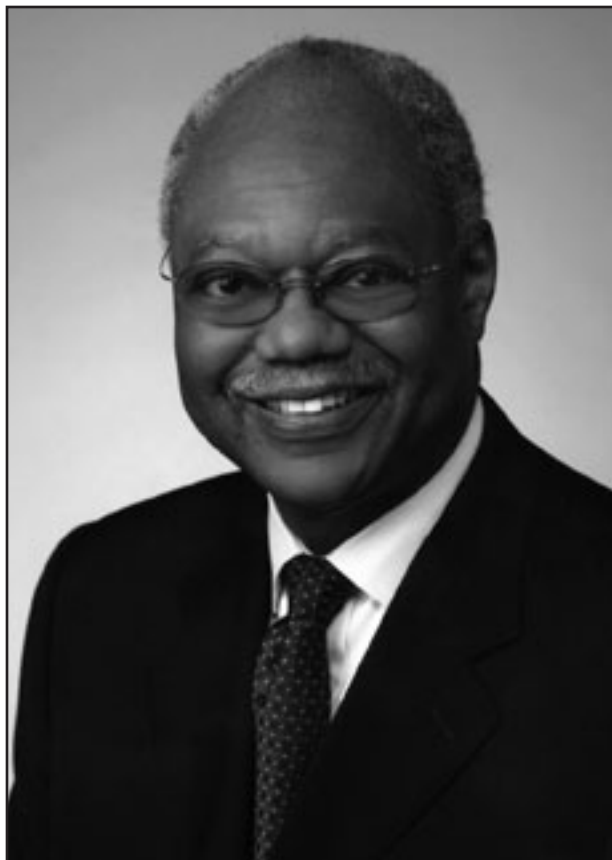
Congratulations to Chicago's future scientists, mathematicians, and inventors on your participation in the 61st Annual Student Science Fair.

ComEd is an energetic supporter of the Science Fair, and we can't wait to see how students are inspired by this year's theme: *Science, Mathematics & Technology: Gateway to the Future*. At ComEd, we are committed to sponsoring educational programs that generate curiosity about math and science, and the Student Science Fair is a place where remarkable students like you can creatively share your scientific interests.

The hundreds of scientists and engineers employed by ComEd were all once students like you. We hope this experience sparks a lifetime of learning, and perhaps even a future career in math or science!

A handwritten signature in black ink that reads "Frank M. Clark".

Frank M. Clark
Chairman and Chief Executive Officer
ComEd



WELCOME

ComEd[®]
An Exelon Company



Greetings from Motorola, 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 2011 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,

A handwritten signature in black ink, appearing to read 'Greg'.

Greg Brown
President & CEO
Motorola Solutions





WELCOME

Greetings from Takeda Global Research & Development Center, Inc. Corporate Sponsor

To Our Scientists of Tomorrow:

We are proud of your participation in the Chicago Public Schools Student Science Fair. It is a great way to share your interest in science with your friends, family and teachers. I encourage you to stay curious and engaged; science will take you places you never thought you would go.

At Takeda Global Research and Development Center, Inc., scientific research is at the core of what we do. We are constantly striving toward better health for patients worldwide, and science makes it 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, presenting \$30,000 in scholarships for outstanding students to continue their education in science. This is an investment in you to be the health innovators of tomorrow.

Good luck to all of you at the science fair and a special thank you to all the teachers, parents and volunteers who have given their time and dedication to support you in 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 to the 61st Annual Chicago Public Schools Student Science Fair at the Museum of Science and Industry. Congratulations to all the students whose hard work and innovative thinking have brought them here.

The theme of this year's Science Fair, *Science, Mathematics & Technology: Gateway to the Future*, reflects the critical role these fields play in our well-being, our nation's economic growth, and our world's environment. Scientific discoveries will help us overcome challenges like climate change, energy, health, security and hunger, so that we all have a brighter future.

At the Museum of Science and Industry, our vision is to inspire and motivate our children to achieve their full potential in the fields of science, technology, medicine and engineering. To reach this vision, we're exciting students and teachers with programs offered through our Center for the Advancement of Science Education. And we're welcoming guests with bold and transformative new exhibitions like *Science Storms*, *YOU! The Experience*, and the temporary exhibit *BODY WORLDS & The Cycle of Life*, at the Museum through Sept. 5.

Through your science fair projects, you're doing some of the same things we do here at the Museum. You're showing people that science is fun. You're teaching them that science is all around them. And you're inspiring people to come up with their own discoveries.

Good luck to all the participants in this year's Student Science Fair, our next generation of scientists, engineers, explorers and thinkers. We hope that you find inspiration here at the Museum and in the world around you, and I look forward to seeing the concepts and innovations yet to come from all of you.



Best wishes,

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



Greetings from the Chicago Public Schools Chief Executive Officer

Welcome to the 61st Annual Chicago Public Schools (CPS) Student Science Fair.

As we prepare our students to be powerful thinkers and responsible, engaged global citizens who can succeed in an increasingly high-tech, digital, and green economy, mathematics and science are more important than ever.

Science Fair challenges our students to demonstrate their intellectual independence, tackling questions and topics that intrigue and inspire them. Driven by their intellectual curiosity and their desire to solve the serious problems the world faces today, the students participating in the fair have designed and developed an impressive variety of projects with guidance from dedicated teachers and encouraging parents.

We invite you to join us in recognizing this year's group of 366 student scientists representing 138 schools. They have invested an extraordinary amount of time and energy into their projects, and through the Fair they will compete for scholarships, prizes and the chance to advance to the state and international levels. Each and every one of these students has a bright future as professional in the science, technology, engineering and mathematics fields.

Thank you to the supporters of City Science Fair, including the hundreds of teachers who serve as coaches and the thousands of parents who help their children prepare their project displays and polish their presentations. None of this would be possible without the generous support of our donors, who have contributed more than half of the funds for operating costs and scholarships for students. Thank you to the Museum of Science and Industry, the Motorola Foundation, Takeda Global Research & Development Center, Inc. and ComEd for their unwavering support. CPS is proud to collaborate with these organizations to offer our students this wonderful opportunity.



Good luck to all of this year's City Science Fair participants. I look forward to learning from their work.

Terry Mazany
Chief Executive Officer
Chicago Public Schools



Greeting from the CPS Office of Teaching and Learning

This year's Chicago Public Schools (CPS) Science Fair's theme *Science, Mathematics & Technology: Gateway to the Future*, has given students the chance to show case the ways in which science and mathematics becomes a real and practical aspect of people's everyday life. As we reflect on the past, we may remember a time when finding a good job meant securing employment at an established company, where working hard was rewarded with a decent paycheck, good benefits, and the occasional promotion. As markets around the world make gains and slowly recover from the past two years of economic downturn, we see job markets have changed. You may wonder, what has made the largest impact in the job market? In a word, innovation, this simple yet complex term has revolutionized and transformed the way we live, work and do business. Change may cause some to shrink back, instead we should welcome the challenge to advance and reinvent ourselves through science, mathematics and technology. With this in mind, we applaud our students who have embraced science, mathematics and technology in this year's Science fair. As you behold the innovations of our students, try to envision them five or ten years from now. Could these be the innovations changing, molding and transforming our health care system, energy and environmental crisis, and boosting and stabilizing our economy?

As you tour the different projects on display, I expect you will be in awe of the uniqueness and diversity of the topics that were researched. Please take time out to gain a deeper understanding of these individual projects. Invite these students to tell you how they cultivated the idea for their innovation, what hurdles they had to overcome to reach their desired result, what surprising or unexpected findings they discovered. I am sure you will soon discover that their enthusiasm will rub off.

Each science fair participant deserves recognition and congratulations for the determination, hard work and discipline they have poured into their project. By committing time and effort to their research project, students learned valuable lessons not only about their area of focus, but gained unique characteristics such as forbearance, commitment, the



importance of organization, and an eye for detail – invaluable skills sought after in today's competitive academic and work environments.

Not to be overlooked, are the countless teachers, parents, friends and mentors who devoted much time and energy guiding our students by helping them think through their project, carry out experiments, and evaluate their results. They give students the courage and determination to press on and view their work as a success even when they do not attain their desired results. Unfailing supporters of our students help to confirm their love of science and mathematics, motivate them to have confidence in their abilities, and move them to keep their creative spark and imaginations open to explore new ideas in the areas of mathematics and science.

In addition, we thank those who have had a role in making the science fair a success and an enjoyable experience for all involved – Chief Area Officers, principals, school leaders, department chairpersons, judges, organizers, volunteers and our major cooperate sponsors (Motorola, ComEd, Takeda Global Research & Development Center, Inc., and People's Gas).

Katherine Volk
Chief Officer
Office of Teaching and Learning
Chicago Public Schools



Greetings from the CPS Office of Science

Congratulations and Welcome to the 61st Annual Chicago Student Science Fair!

Throughout the world, innovative individuals are employing science, mathematics and technology as a Gateway to the Future. We know these individuals as scientists.

Their efforts have sent astronauts to space, identified new species of animals, and discovered medical breakthroughs that save the lives of those we love. They shape the products we use, perfect the various energy sources we employ in our homes and vehicles, and influence public policies – all seeking to positively impact our lives and communities.

It is these efforts that inspire our students to consider how they, too, can use science in their every-day lives to shape the world around them.

This curiosity and passion inspired the students in attendance this weekend – along with thousands of their peers in schools and classrooms throughout Chicago – to follow in the footsteps of scientists.

They committed themselves to conducting an independent research project, learning first-hand how to design a scientific experiment, collect and analyze data, and offer conclusions.

Whether researching new topics – such as the trans-fat content of food – or applying new techniques to old issues – such as improving the water quality of the Chicago River – I am impressed at their scientific ingenuity and creativity.

It is important to note that these students did not achieve success alone. They were helped by friends, teachers, parents and community volunteers. By giving of their time, wisdom and passion, these volunteers helped our scientists-in-training to overcome obstacles, and encouraged them when the going got tough. We owe these individuals our gratitude!

I would also like to thank the many corporations committed to supporting CPS students as they further their scientific knowledge. In particular, I would like to thank our major corporate sponsors, including Mo-



torola, Peoples Gas, Takeda Global Research & Development Center, Inc., and ComEd: An Exelon Company, for their generous support. Without you, the CPS Student Science Fair would not be the event that it is.

Let me close by again congratulating our students on their scientific efforts and accomplishments. You can truly claim the title of “scientist” with pride!

Sincerely,
John F. Loehr, Ph.D.
Science Director
Chicago Public Schools



Greetings from Student Science Fair, Inc. Executive Chairperson

Welcome to the 61st Annual Chicago Public Schools Student Science Fair. We are surrounded by new discoveries, greater advances and the kinds of innovations once only present in the minds of visionaries and science fiction writers. *Science, Mathematics and Technology: Gateway to the Future* appropriately selected as our theme, provides a plan of action for the 300 plus students exhibiting in the Fair.

President Barack Obama stated that the US must invest in research and development, science and especially education or risk witnessing technological advances unfold in other countries. For 61 years, Student Science Fair, Inc. has advocated for the opportunity to engage ALL students in the scientific process of asking questions, researching, experimenting, collecting and analyzing data, collaborating and sharing their discoveries. We proudly recognize the diligent work of our middle and high school students who are to be celebrated. This is their opportunity to share what they have learned and your opportunity to motivate them to soar to new heights.

Although it would be impossible to acknowledge everyone, I would like to extend my sincere gratitude to the SSF, Inc. Board of Directors and our major corporate sponsors-Motorola Solutions Foundation, Takeda Global Research & Development Center, Inc., and ComEd, An Exelon Company for their unwavering support and dedication. I would like to thank the educators, committee chairpersons, volunteers, and parents for their many hours in assisting students with project preparation. A special note of thanks is offered to our university partners and Peoples Gas for extending student learning opportunities beyond the traditional classroom structure. To the Museum of Science and Industry, we are forever grateful for your continued support and for hosting the CPS Student Science Fair since its inception.



To our young scientists: Many leaders in industry, business, government and education have expressed concern about the educational exposure needed for the world you will inherit. Your participation in this event is evidence of the integration of content, research, thoughtful reflection and discussions you have experienced. You are all winners and have embarked on a pathway to greater success whether you aspire to be a scientist, mathematician, engineer or medical professional. You are our future and we are depending on the choices you will make. This Science Fair experience prepares you for the awesome responsibility of becoming the educators, policy makers, innovators and productive citizens in our society. Congratulations as you pass through the Gateway to the Future!

Linda Carter
Executive Chairperson
Chicago Public Schools Student Science Fair, Inc.



Greetings from Student Science Fair, Inc. Executive Director

Welcome to the 61st Annual Chicago Public Schools Student Science Fair. We are excited to be a part of *Science, Mathematics and Technology: Gateway to the Future*.

Each year students participate in various competitions, which allow them to demonstrate some of their intellectual interests reflective of the world in which they live. Students engage in conversations and discussions as well as respond to questions pertaining to their scientific investigations. As a result of their findings and discussions, constructive feedback is provided to the students in an effort to assist to them in taking their projects to the “next level”. Some students may decide to follow through on their findings and continue on to patent a new innovative way to fuel conservation, or even a more effective method of medical treatment. The possibilities are endless!

The Chicago Public School Student Science Fair is an extension of the investigation conducted as a result of classroom instruction. Students are taking an important “next step” by applying their educational observations, experience and creativity to make their own scientific conclusions and discoveries. These results may very well be the solutions for tomorrow.

It is important for children to understand the importance that science, math and technology plays in today’s society. With the ecological and economical struggles that we face there is a need for our young people to get involved. Within them we will find the next alternative energy source, the next cure, the next economically efficient mode of transportation. It is thru the experience of the City Science Fair that students are able to collaborate thru their competitive natures to test their own limitations.

I would like to thank all of the teachers, parents, and mentors for taking the time to invest in the future of our students. You have provided them with a structured learning environment and the



necessary situations to become scientific thinkers. Your support has given them the opportunity to let their lights shine and their imaginations come to life.

Congratulations to all of the student participants. Achieving this level of competition is a tremendous accomplishment. I would like you to take the comments and remarks from the judges as the stepping-stones necessary to take your project to the next level of exploration. Knowledge is power, and as long as you push beyond the visible boundaries, the power you create for yourself can be limitless.

Sincerely

Pamela D. Sherley
Executive Director
CPS Student Science, Fair, Inc.



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 Foundation, ComEd, An Exelon Company, 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 \$50,000 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 area 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 contact Pamela Sherley at CPS Student Science Fair, Inc., P.O. Box 803945, Chicago, IL 60680-3945. Electronic messages can be sent to pdsherley@cps.k12.il.us

We would greatly appreciate your partnership.

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



Contributors

To all of those who contributed to the operating and scholarship funds, we offer a very special THANK YOU for helping to make the 2011 Science Fair a success.

Operating Fund

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

Academic Sponsor

- CPS Office of Teaching & Learning

Site Sponsor

- Museum of Science and Industry

Corporate Sponsor – up to \$50,000

- ComEd, An Exelon Co.
- Motorola Solutions Foundation

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- Peoples Gas Light & Coke

Angels - \$1,000 Minimum

- Mary Boettcher
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- Peoples Gas Light & Coke
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Donor - \$100 Minimum

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Scholarship Fund

Donations to the Scholarship Fund go to qualified high school seniors who have presented a project at an Area Science Fair and will major in science in college.

Benefactors of Academic Scholarships

- DePaul University
- Loyola University
- University of Chicago
- University of Illinois at Chicago

Corporate Sponsor – up to \$50,000

- Takeda Global Research & Development Center, Inc.

Executive Circle - \$5,000 Minimum

- Roy Coleman & Dianna Uchida

Angels - \$1,000 Minimum

- Blum-Kovler Foundation
- Chicago Teachers Union

Patrons - \$500 Minimum

- CPS Combined Charities
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If you are interested in supporting the Science Fair or becoming a sponsor, additional information can be obtained by contacting Pamela Sherley at pdsherley@cps.k12.il.us or by sending an inquiry to P.O. Box 803945 Chicago, IL, 60680-3945.



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 24, 2011, 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 24, 2011. 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 6 and 7, 2011.

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 2011 topic is: *The Science of Music*

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.

2011 Essay Contest Winners

Exh	Student Name	Grade	Area	School	Title
801	Affaneh, Yazen	11	23	Bogan	Music and the Human Body
802	Brown, Cyerra	10	54	Young, W	How Music Can Improve the Body
803	Castellanos, Mareli	11	54	Curie	Music and a Baby's Brain Development
804	Chen, Yichao	9	54	Young, W	The Science of Recording Music/Sound
805	Guzman, Diana	10	54	Curie	Loud Music and Hearing Loss
806	Mei, Sally	10	54	Curie	Music Effects on the Lung and Heart
807	Orozco, Gloria	10	54	Curie	Music and Its Effects on Blood Pressure
808	Sanders, Andre	10	54	Chicago Ag.	How Does Music Affect Humans?
809	Stacey, Alaina	10	54	Young, W	The Science of the Human Voice
810	Tse, Allen	10	54	Curie	The Science of Music-Music on the Brain
811	Lopez, Celeste	7	2	Disney	Music Can Help Children with Disabilities
812	Quino, Cecilia	9	10	Calmecca	Sound
813	Quino, Aaron	9	10	Calmecca	Sound Frequency



Symposium Schedule

Thursday, March 24, 2011

AM Presentation Schedule

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

Ex#	Student Name	Grade	Project Title	Category	School	Area
601	Cook, Michael	10	The Length of the Season(ing)	Environmental Science	Chicago Ag.	54
602	Hentati, Firas	10	Urbanization and Water Quality	Environmental Science	Lincoln Park	54
603	Montgomery, Evan	9	Analysis of Blade Design on Wind Power Output	Environmental Science	Lincoln Park	54
604	Perez, Jonathan	12	EDCs Induce Insulin Resistance	Environmental Science	Lane Tech	19
605	Raymundo, Cristina	9	Oil-Eaters	Environmental Science	Lake View	54
606	Rincon, Aileen	10	Lake Michigan Water Quality	Environmental Science	Curie	54
607	Skowron, Kornelia	9	The Effect of Acid Rain on Limestone	Environmental Science	Lane Tech	19
608	Sulaiman, Faiza	12	CaCO ₃ Used in Liming: Does It Aid Daphnia?	Environmental Science	Lane Tech	19

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

Ex#	Student Name	Grade	Project Title	Category	School	Area
609	Cholst, Beth	11	The Happy Ending Problem: A Step Closer	Mathematics	Walter Payton	54
610	Dugan, Kelley	10	Cycloidal vs. Involute	Physics	Lane Tech	19
611	Evans, Andre	12	The Best Radiation Sponge	Physics	King College Prep	26
612	Flak, Daniela	10	Thermoelectric Properties of Bi ₂ Te ₃	Physics	Lincoln Park	54
613	Marinescu, Teodora	9	Liquids Electrical Conduction	Physics	Lincoln Park	54
614	Nimnark, Shongmas	12	Does Light Wavelength Affect Light Efficacy?	Physics	Lincoln Park	54
615	Rojek, Alexandra	12	Energy Optimization for Synchrotron MicroCT	Physics	Northside College Prep	54
616	Zajac, Cooper	11	Can Temperature Affect Kers Efficiency?	Physics	Lincoln Park	54

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

Ex#	Student Name	Grade	Project Title	Category	School	Area
617	Balay-Wilson, Leah	12	Loss of Chaos in Parkinson's Disease	Computer Science	Lincoln Park	54
618	Cvetkovic, Samuilo	10	Hydroelectric Efficient Dam Structures	Engineering Science	Lane Tech	19
619	Lu, Lena	9	Trust the Truss?	Engineering Science	Lincoln Park	54
620	Rasmussen, Ian	9	Insulation and the Effects on Heat Loss	Materials Science	Lincoln Park	54
621	Swartz, Kyle	12	Tornado Genesis: Multiple Vortices	Earth Science	Von Steuben Science Ctr.	21



Thursday, March 24, 2011

PM Presentation Schedule

Room 1-Session D 1:00p.m. to 3:30p.m.

Ex#	Student Name	Grade	Project Title	Category	School	Area
622	Agunloye, Olyfolabi	10	Fear Factor: Effects of Predation on Zebrafish	Behavioral Science	Lane Tech	19
623	Gutierrez , Alexis	10	Exergames	Behavioral Science	Curie	54
624	Kajderowicz, Kathrin	9	Classical Music Effect on Vivid Memory	Behavioral Science	Lane Tech	19
625	Kalandyk, Anna	9	Musical Distraction	Behavioral Science	Lincoln Park	54
626	Lin Lin, Mei	9	How Strong are Your Taste Buds?	Behavioral Science	Lake View	54

Room 2-Session E 1:00p.m. to 3:30p.m.

Ex#	Student Name	Grade	Project Title	Category	School	Area
627	Khan, Saad	11	FoxO Signaling in Skeletal Muscular Atrophy	Biochemistry	Lane Tech	19
628	Garcia, Isabella	10	The Effect of Soil on Bamboo	Botany	Lake View	54
629	Medina, Armando	9	The Effect of Colored Light on Plant Growth	Botany	Lake View	54
630	Walker, Alicia	12	The Epigenetics Role of RANKL in Osteoporosis	Health Science	Lane Tech	19
631	Lesiak , Sebastian	9	Effect of UV Rays on <i>E. coli</i>	Microbiology	Lane Tech	19



SYMPOSIUM THURSDAY



Symposium Luncheon Schedule

Thursday, March 24, 2011

Columbian Room – 11:30 a.m

Remarks	Linda Carter Chairperson CPS Student Science Fair, Inc.
Introduction of Special Guests	Nina Hike-Teague Symposium Committee Chairperson
Recognition of Symposium Participants	Nina Hike-Teague
Recognition of Judges (Years of Service)	Nina Hike-Teague Linda Carter





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 area 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 25, 2011, 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 6 and 7, 2011, on the campus of the University of Illinois, Champaign-Urbana. Students will compete with other students from around the state.

On Saturday, March 26, 2011, 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 8 - 13, 2011 in Los Angeles, California.

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 27, 2011, 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.

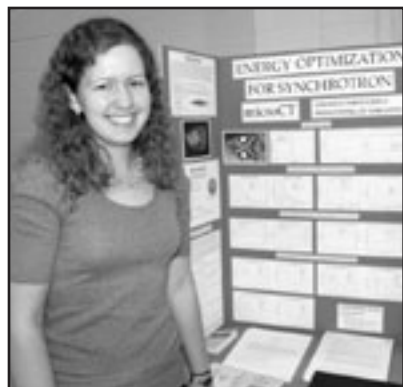




Exhibit Schedule

Friday, March 25, 2011

Science Fair Exhibit Judging

7:30 A.M. – 8:30 A.M.	Judges Briefing and Breakfast	Main Auditorium
8:30 A.M. – 1:00 P.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 Buffet Luncheon	Between Coal Mine Entrance and Petroleum Planet exhibit
12:00 NOON – 1:30 P.M.	Recognition Luncheon <i>(by invitation only)</i>	Columbian Room
12:00 NOON – 1:00 P.M.	Judging Continues	West Pavilion
1:00 P.M. – 3:15 P.M.	Fair Opens to the Public	West Pavilion



EXHIBIT JUDGING
FRIDAY



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
Aero Space Science					
1	Ballesteros, Alejandro	8	The Effect of Stabilizer Position on a Glider	2	Courtenay
2	Coffee, Jessica	8	Up, Up, and Away! (Or Not!)	13	Beasley
3	Gonzalez, Gabriel	8	Which Paper Plane Design Will Travel Furthest?	3	Locke
4	Snieszko, Robert	8	Which Type of Rotor Can Lift the Most Weight?	54	Columbus
5	Bridges-Reed, Jeffrey	10	Open the Chute	26	Air Force Academy
6	Ghezali, Sarra	11	Objects' Elevations on the Moon	19	Amundsen
Behavioral Science					
7	Coleman, Cailin	7	Face to Face: The Average vs. the Averaged	1	Edgebrook
8	Estrada, Cynthia	7	Cell Phones and Education	54	Lindblom
9	Buschnyj, Justin	8	Brain Fault	6	Burley
10	Deng, Weimin	8	Stroop Effect Takes Action	9	Haines
11	Fogelis, Andrew	8	Do Fingerprint Patterns Affect IQ?	54	Newberry
12	Germany, Karl	8	Color Control	15	Canter
13	Rodriguez, Stevie	8	The Accuracy of Horoscopes	11	Pasteur
14	Russell, Dajah	8	Does Music Affect Teenage Learning Abilities?	3	Brunson
15	Sanchez, Bianca	8	Effects of Talking on the Phone While Driving	9	South Loop
16	Skipper, Jessica	8	Put Your Hands and Feet to the Test	1	Edgebrook
17	Agunloye, Olufolabi	10	Fear Factor: Effects of Predation on Zebra Fish	54	Lane
18	Kajderowicz, Kathrin	10	Classical Music Effect on Vivid Memory	54	Lane
19	Medina, Alejandra	10	Gender and the Stroop Effect	54	Curie
20	Ocampo, Jazmin	10	Sow Bugs' Color Preference	26	Phoenix Military
21	Rodriguez, Flordalia	10	Memory and Music	54	Curie
22	Gastevich, Benjamin	11	English Evolution: Morphological Traits	54	Payton
23	Issifu, Humu	12	Color Bias	54	King
24	Mcwillis, Eriel	12	Turn Up the Heat	23	School of the Arts
25	Nieves, Maribel	12	Can You Actually Learn While Sleeping?	26	Kelvyn Park
26	Torres, Victoria	12	Warping the Stroop Effect	26	Kelvyn Park
Biochemistry					
27	Crum, Isabella	7	Absorption Based on Crude Protein Content	54	Farnsworth
28	Scalise, Erica	7	A Monster Heart Rate	54	Sheridan
29	Flores, Magdalena	8	Fruity Codes	12	Shields
30	Jordan-Zamora, Ariel	8	DNA Extraction and Chlorine CSI Cover-Up	2	Waters
31	Murphy, Devin	8	Does Shape Impact Absorbitivity?	54	Young, W
32	Flores, Stephanie	9	Various Detergents' Effects on DNA Extraction	54	Ogden HS
33	Gunn, Dejaire	9	The Beano	23	Robeson
34	Johnson, Tabitha	10	How Does Temperature Affect Diffusion Rate?	23	Harlan
35	Zoiopoulos, Alexander	10	The Trial of OJ	54	Ogden HS



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
36	Agtarap, Rachel	11	Effect of Enzymes on Apple Juice Production	54	Lake View
37	Carley, Erin	11	The Effects of Geni-Zein on A549 Lung Cancer Cells	24	Hyde Park
38	Chavira, Diana	11	The Optimum of Protease	54	Lane
39	Espinosa, Karina	11	Which Pollutant is the Most Harmful?	26	Hubbard
40	Jouk, Khristina	11	Strength of Naturally Oily vs. Non-Oily Hair	54	Lane
41	Khan, Saad	11	FoxO1 Signaling in Skeletal Muscular Atrophy	54	Lane
42	Lozovyy, Andriy	11	Releasing Food Energy Release & Capturing Heat	21	Von Steuben
43	Silva, Miriam	11	Curdling and Cheese Production	54	Lake View
44	Gauthier, Jennie	12	Nobiletin, A Natural Sunscreen?	24	Hyde Park
45	Howard, Jourdan	12	Cholesterol Fluorescence	54	Lindblom
46	Moore, Dominique	12	Concentration of Glucose in Various Juices	23	School of Leadership
47	Roberts, Omari	12	Functional Consequences of Mutating ASK-1	26	Williams
48	Robinson, Charnice	12	Synergistic Activity of Three Enzymes	54	Chicago Ag.

Botany

49	Myren, Ross	7	The Effect of Clorox Bleach on Algae Growth	9	South Loop
50	Ramirez, Nereida	7	Does Wattage Affect Plant Growth?	11	Morrill
51	Silva, Joaquin	7	Will Oat Seeds Germinate?	3	Locke
52	Talaga, Lukas	7	Does Soaked Wood Make It Stronger?	54	Lenart
53	Zajac, Agnieszka	7	Which Type of Soil Will Absorb Most Water?	54	Twain
54	Augusthy, Sebastian	8	Effect of G. Cambogia on Bacterial Growth	15	Canter
55	Nawar, Noshin	8	What is a Plant's Favorite Color?	2	Armstrong, G
56	Opakunle, Bolaji	8	Getting to the Root of It	17	Powell
57	Puc, Marcelina	8	Cultivating Tomatoes	54	Bridge
58	Symonds, Rebecca	8	I See Your Bloomers	1	Belding
59	Trujillo, Diana	8	Acid Rain and the Germination of Pinto Beans	13	Hamline
60	Villanueva, Mayra	8	Plant Compost	54	Carson
61	Hernandez, Josue	9	Effect of Light Intensity on Ivy Plant Growth	54	Ogden HS
62	Luvianos, Eliza	9	The Effect of Vitamin C on Lima Bean Plants	54	Lincoln Park
63	Medina, Armando	9	The Effect of Colored Light on Plant Growth	54	Lake View
64	Mojica, Aracelli	9	How Do Salts Affect Seed Germination?	26	Steinmetz
65	Chavez, Kathya	10	Soft and Strong	54	Curie
66	Gomez, Laura	10	Road Salt's Effects on Road Side Vegetation	54	Curie
67	Hicks, Jeremy	10	How Much Water is in An Orange?	23	Harlan
68	Popovic, Milica	10	Centrifugal Force on Pea Plants	54	Young, W
69	Williams, Dequandre	10	Signaling Plant Growth	23	Harlan
70	Gibbs, Ebony	11	Green Tea vs. Banana Peels	54	King
71	Harris, Sherita	11	What Affects Plants' Growth?	21	Dyett
72	Thompson, Ethalle	11	Does Caffeine Affect Plant Growth?	24	Morgan Park
73	Jones, Isis	12	Blooming Red Algae	54	King
74	Tellis, Desiree	12	Germinating Black-Eyed Pea Seeds and Oil	54	King



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
Chemistry					
75	Ameeren, Ajmal	7	Turning Up The Heat	2	Kilmer
76	Bowman, Rebecca	7	Can You Breathe In Here?	54	Lindblom
77	Dumas, Leah	7	How Quick Are You?	17	Gillespie
78	Monroy, Nydia	7	The Effect of Various Fabrics on Heat Loss	4	Nobel
79	Nwachukwu, Erin	7	The Power of Cooking Grease	54	Lindblom
80	Podobinska, Kathy	7	Which Has More Sugar: Soda or Juice?	54	Twain
81	Rozmus, Olivia	7	The Ultimate Electrolyte Battle	2	Blaine
82	Tabor, Darius	7	Electric Surge: Finding the Power	13	Davis
83	Vandermeulen, Willem	7	Corrosion and the pH Scale	6	Burley
84	Alao, Khaliff	8	The Truth About Water	18	White
85	Altman, Robert	8	Absorption of Aspirin in CHO Solutions	1	Ebinger
86	Bridges, Victoria	8	Caught Bright Blue Handed, Again	6	Lincoln
87	Brown, Jerre'e	8	Polar and Non-Polar Molecules	18	Bright
88	Castro, Noel	8	Fact or Fiction?	4	Chopin
89	Dowd, Moriah	8	Acid Wars	16	Dunne
90	Garcia, Monica	8	How Do Gases Contract and Expand?	4	Funston
90	Lagunas, Annette	8	How Do Gases Contract and Expand?	4	Funston
91	Hall, Terrence	8	The Perm Will Burn	11	Morrill
92	Hardman, Winter	8	How Do You Take Your Tea?	54	Black
93	Holmlund, Brita	8	What Absorbs Oil?	3	Clark
94	Jastrzebski, Martin	8	How Heat Affects Starch Breakdown	54	Young, W
95	Kalaw, Evan	8	Can or Can't-ola II	54	Beaubien
96	Li, Yiping	8	Citrus Explosion	54	Healy
97	Monroy, Valeria	8	Chilling with Milk	4	Nobel
98	Scott-Medley, Cree	8	A Bubble's Life	9	South Loop
99	Shuaibi, Ahmed	8	A Solvent's Effect on It's End Reaction Time	54	Dore
100	Szajna, Megan	8	Vitamin C in Orange Juice?	54	Bridge
101	Timms, Natalya	8	Stop That Gas!	18	Colemon
102	Vera, Gloria	8	How Permanent are Permanent Markers?	13	Graham
103	Walsh, Elizabeth	8	Does pH Affect Dissolution Speed?	6	Alcott
104	Wyatt, William	8	Does Sugar Affect How Water Molecules Travel?	18	DuBois
105	Aguilar, Jennifer	9	Is Less Detergent Less Effective?	26	Infinity
106	Bradley, Nailah	9	Testing the Acidity of Various Water Sources	52	Noble St - Muchin
107	Garnica, Clemencia	9	Levels of Unsaturated Fat in Different Oils	21	Juarez
108	McDaniel, Mariah	9	Temperature vs. Viscosity	54	Brooks
109	McElroy, Phyllis	9	Effect of Decarbonation on pH of Soft Drinks	23	Hirsch
110	Reyes, Angelica	9	Flame Testing	26	Infinity
111	Zavala, Luis	9	Does Temperature Affect How Much Gas Soda Has?	26	Infinity



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
112	Abram, Khawana	10	Peanut Power	26	Chicago Military
113	Booker, Khadijah	10	Which Orange Juice Has the Most Vitamin C?	23	Hirsch
114	Bullock, Ryan	10	Is Cotton Safe?	26	Taft
115	Clayborn, Shantrice	10	Which Light Has Most Effect on Photosynthesis?	23	Hirsch
116	Conner, Joshua	10	Intermolecular Forces	26	Phoenix Military
117	Dallas, Anica	10	pH Level Variations in Juices	24	Hyde Park
118	Gordon, Christian	10	Various Fuels' Quantitative Burning Properties	26	Taft
119	Gray, Brianna	10	Crafted Calorimeter to Measure Caloric Values	52	Noble St - Muchin
120	Lesley, Cherise	10	Lemon Battery	24	Chicago Vocational
121	Lewis, Daniel	10	Misleading Labels?	26	Carver Military
122	Moore, Destiny	10	Heat Released	24	Hyde Park
123	Mui, Adrian	10	Production of Biodiesel	54	Young, W
124	Nguyen, Michael	10	Stains Be Gone	26	Air Force Academy
125	Oglesby, Alandra	10	What Effect Does Temperature Have on pH?	24	Morgan Park
126	Ruiz, Stephany	10	The Effect of Mixing Metal Compounds	19	Amundsen
127	Lemiesz, Aleksandra	11	The Legal Drug Caffeine	54	King
128	Tran, Margaret	11	Flammability of Fire Resistant Fabrics	54	Lane
129	Calvin, Ricki	12	Natural pH Indicators	21	Crane
130	Raybon, Alexis	12	Microencapsulation of Peppermint Flavor	54	Chicago Ag.
131	Rebiai, Rima	12	How Does Heat Travel in Conductors?	19	Amundsen

Computer Science

132	Odum, Joshua	7	Parabolic Reflectors: All the Range	1	Edison
133	Moya, Francesca	8	Taking Control of your Wi-Fi Signal	1	Taft
134	Portis, Tyler	8	Hearing the Unheard	17	Neil
135	Sandoval, Jose	10	Best CPU Cooler	54	Lake View
136	Balay-Wilson, Leah	12	Loss of Chaos in Parkinson's Disease	54	Lincoln Park

Earth Science

137	Jenkins, Cheritta	8	Taking Earth's Magnetic Pulse	52	Locke Charter
138	Smith, Christopher	10	Soil Type and Water Retention	19	Dunbar
139	Swartz, Kyle	12	Tornado Genesis: Multiple Vortices	21	Von Steuben

Electronics

140	Tabor, Nathan	7	Wind Turbine Size and Electricity Generated	52	Chicago Virtual Charter
141	Wheelan, Katrina	7	How is Motor Speed Affected by Rotor Height?	6	Alcott
142	Torres, Francisco	8	Wire Wilt	10	Lara
143	Woodard, Joshua	9	The Potato Battery	54	Young, W
144	Perez, Nathaniel	10	Solar Cells	54	Ogden HS



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
Engineering Science					
145	Brahin, Leonard	7	In Truss We Trust	54	Ogden
146	Lopez, Rene	7	What is the Best Sound Proofing Material?	4	Prieto
147	Ramirez, Lucia Elena	7	Does Distance Really Matter?	29	Fulton
148	Cervantes, Jose	8	Venturi's Effects on Wind and Energy	4	Yates
149	Delgado, Juan	8	Wind Generated Electricity	4	West Park
150	Gaughan, Jessika	8	Magnetic Motor Madness	16	Keller
151	Jones, Fernandez	8	Rubbing the Wrong Way	14	Claremont
152	Paukstys, Joe	8	What Material Makes the Best Soundboard?	11	Byrne
153	Thornton, Shekinah	8	Structural Strength	54	Carnegie
154	Mondry, Elliott	9	Strength of the Truss Bridge	54	Young, W
155	Rosales, Maria Alexandra	9	Gone with the Wind	54	Lincoln Park
156	Wilson, Brandon	9	Twisted Turbine	26	Chicago Military
157	Chavez, Maritza	10	Bridge Design	26	Phoenix Military
158	Cvetkovic, Samuilo	10	Hydroelectric Efficient Dam Structures	54	Lane
159	Surganov, Anthony	11	Passive Solar Tracking	54	Lane
160	Villagomez, Johnny	11	Which Material Insulates the Most Heat?	26	Phoenix Military
161	Gomez, Teodoro	12	Trebouchet Physics	19	Schurz
Environmental Science					
162	Abraham, Phylcia	7	Fight for the Right to Photosynthesize	1	Edison
163	Edwards, Carmani	7	How Does De-icer Salt Affect Earthworms?	54	Murray
164	Gonzalez, Diego	7	More Power to Ya!	6	Talcott
165	Jarr, James	7	How Does Blade Number and Angle Affect Power?	1	Palmer
166	Koval, Kenneth	7	Where Are the Nutrients?	54	Dore
167	Kular, Esha	7	Is the Oil Spill Warming Our Planet?	54	Jackson, A.
168	Nieves, Cristian	7	Wash Away Oil	54	Ogden
169	Tapia, Natalie	7	Swimming in Acid	54	Galileo
170	Andrade, Raul	8	Solar Sun	11	Peck
171	Atkinson, Carson	8	Think Before You Drink!	2	Nettelhorst
172	McGuffin, Indya	8	Lead Me Out	6	Hawthorne
173	Pokrzywa, Ana Lee	8	Does Bioremediation Accelerate Oil Reduction?	54	Sauganash
174	Simmons-Brown, Bailey	8	Effects of Ecosystems on the Water Quality	54	Dore
175	Stafford, Peter	8	BP Breakdown	54	Beaubien
176	Steigerwald, Ian	8	Does Green Clean Mean Green?	54	Beaubien
177	Tomlinson, Hannah	8	Efficiency of Heat Transfer Fluids	54	Lenart
178	Trumbull, Isabel	8	Various Gray Water Solutions on Plants	6	Hawthorne
179	Branch, Jaeda	9	Conducting the Sun	24	Morgan Park
180	Estrella, Angel	9	What Angle Works Best?	54	Lane



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
181	Glueckert, Adam	9	Bioremediation: Taking a Bite of Future Spills	54	Lane
182	Hardin, Jacqueline	9	Removing Dangerous Lead From Tap Water	54	Lane
183	Montgomery, Evan	9	Analysis of Blade Shape on Wind Power Output	54	Lincoln Park
184	Peoples, Deshun	9	Neutralizing Acidic Soil	54	Lindblom
185	Steinmeyer, Conrad	9	Power From Wind	54	Lincoln Park
186	Stubna, Thomas	9	Water Pollution: Natural vs. Treated Water	54	Lincoln Park
187	Aitbouja, Jordan	10	The Effect of pH on Daphnia	19	Chgo. Math & Science
188	Artiaga, Ana	10	Pee-ure Water	54	Curie
189	Cruz, Brian	10	Water Pollution and Plankton Variety	19	Chgo. Math & Science
190	Davis, Marcellis	10	A Straight Flush	24	Hyde Park
191	Gasca, Alexander	10	Zero Valent Iron Filtration vs. Chlorination	54	Payton
192	Hernandez, Anna	10	A Fuel for the Future	54	Young, W
193	Vargas, Luis	10	Veggie Power	21	Westinghouse
194	Ali, Arzeena	11	Effect of Phosphates on DO Levels of Water	19	Chgo. Math & Science
195	Bloom, Thea	11	Effect of Thermal Pollution on Water Plants	54	Lane
196	Prichett, Gary	11	In Deep Trouble: Cleaning Up the Oil Spill	54	Brooks
197	Rodriguez, Maria	11	Dish Washing Soap vs. Oil Spill	26	Phoenix Military
198	Zermeno, Daniela	11	Can Greywater Be Reused to Grow Wheatgrass?	54	Lane
199	Cruz, Alejandra	12	Pollution in Soil and Worm Population	19	Chgo. Math & Science
200	Harris, Dasza	12	The Effect of Global Warming on Algae Formation	23	School of the Arts
201	Itzep, Marlon	12	The Effect of <i>Allium sativum</i> on Mosquito Larvae	19	Chgo. Math & Science
202	Perez, Jonathan	12	EDCs Induce Insulin Resistance	54	Lane
203	Pirpiris, Patrice	12	Catching Some Rays!	26	Taft
204	Ricks, Thaddeus	12	Effects of Carbon Dioxide and Methane on Temp.	23	School of the Arts
205	Scott, Jordanna	12	The Effect of Farmland on Algae Formation	23	School of the Arts
206	Sulaiman, Faiza	12	CaCO ₃ Used in Liming: Does it Aid Daphnia?	54	Lane

Health Science

207	Boswell, Kayla	7	Got Milk?	54	Sheridan
208	Boens, Karlyn	8	The Effect of Food Preservatives	7	Hughes
209	Gonzalez, Alyssa	8	Identifying Food Dyes in Candy	54	Seward
210	Lopez, Alexis	8	Fingerprint Layers	54	Eberhart
211	Maas, Rebecca	8	Smoking and Gender: Effects on Lung Capacity	16	Keller
212	Pink, Jessie	8	How Does Exercise Affect Blood Pressure?	14	Joplin
213	Shumate, Tiana	8	Which Toothpaste Whitens Teeth the Best?	17	Kipling
214	Walsh, Claire-Wen	8	Which Is More Efficient at Reducing Weight?	54	Young, W
215	Davis, Akilah	10	How Sweet It Is: Measuring Glucose in Food	23	Harlan
216	Dearon, Ryan	10	Chemotherapeutic Drugs Versus Phytochemicals	21	Hope
217	Vargas, Astrid	10	Effect of Lung Cancer Cells Treated	26	Steinmetz
218	Vergara, Wendy	10	Music and the Heart	54	Curie



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
219	Williams, Zach	10	The Effect of Monster on the Heart	26	Air Force Academy
220	Wrazien, Nicholas	10	Effects of Different Liquids on Daphnia	24	Kennedy
221	Askia, Fatimah	12	ATG16LI and Transferrin Trafficking	26	Williams
222	Freeman, Arlevea	12	Organic or Conventional?	24	Morgan Park
223	Parkash, Kanchan	12	Predicting T-cell & Clinical Responses to IL-2	21	Von Steuben
224	Rollins, Madeline	12	IL-15 and Receptor Expression in Joint Tissue	54	Payton
225	Walker, Alicia	12	The Epigenetic Role of RANKL in Osteoporosis	54	Lane

Materials Science

226	Carrillo, Alejandro	7	Which Container Reigns Supreme?	18	Gallistel
227	Hardin, Rachel	7	Reflective Roofing for a Renewable Resource	2	Bell
228	Scales, Nastasia	7	Flamin' Fabric	6	Franklin
229	Hoang, Sophia	8	Play With Style	54	Healy
230	Land, Gwendolyn	8	Insulate Me	17	Heroes
231	Battung, Joel	9	Shish-ka Bobbing Balloons	24	Kennedy
232	Contreras, Agnelia	9	The Effects of Materials on Plant Growth	24	Kennedy
233	Nunez, Francisco	9	Which is the Best Insulation?	26	Infinity
234	Beal, Demetrice	11	Foul Water Lab	19	Manley
235	Davis, Calvin	11	Hot Stuff	24	Julian
236	Casey, Dominique	12	Home Insulation	23	Washington
237	Guzman, Gilberto	12	Forensic Glass Analysis: Break In and Entering	26	Carver Military

Mathematics

238	Maina, Ivy	8	Wireless Math	7	Irving
239	Alamo, Raul	8	Battle of the Parabolas	4	Yates
239	Solano, Raymond	8	Battle of the Parabolas	4	Yates
240	Agunloye, Oluwamide	11	The Drake Equation: A Novel Decision Protocol	54	Lane
241	Cholst, Beth	11	The Happy Ending Problem: A Step Closer	54	Payton

Microbiology

242	Bartley, Anthony	7	The Effect of Resveratrol on Dictyostelium	16	Vanderpoel
243	Castellanos, Cristian	7	Effects of UV Radiation on <i>Bacillus subtilis</i>	54	Stone
243	Mian, Afrasiab	7	Effects of UV Radiation on <i>Bacillus subtilis</i>	54	Stone
244	Lee, Sunyoung	7	Effectiveness of Hand Sanitizer & Antibacterials	54	Murray
245	Nguyen, Brenda	8	Does Cilantro Inhibit the Growth of <i>E. coli</i> ?	2	Swift
246	Sattar, Fatima	8	Do Cell Phones Damage DNA?	54	Sauganash
247	Steinbrecher, Otto	8	The Effect of Microwave Radiation on <i>E. coli</i>	54	Newberry
248	Weller, Zachary	8	Water Disinfection: Solar vs. Bleach	6	Hawthorne
249	Lesiak, Sebastian	9	Effect of UV Rays on <i>E. coli</i>	54	Lane
250	Ahumada, David	10	Mechanism of SFC Resistance in <i>Candida albicans</i>	54	Payton
251	Calatayud, Alexander	10	The Effect of UV on Bacteria	21	Westinghouse



Exhibits by Category

Ex#	Student Name	Grade	Title	Area	School
252	Lyang, Charles	10	Effects of Daidzein on Prostate Cancer Cells	54	Young, W
253	Villarreal, Alex	10	Bio-warfare! <i>E. coli</i> vs. T4 Bacteriophages	54	Chicago Ag.
254	Sachs, Willa	11	The Effect of Propolis on <i>Gloeocapsa</i>	54	Lane
255	Castellanos, Alan	12	Different Mouthwashes vs. <i>S. salivarius</i>	54	Lake View
256	Madden, Jocelyn	12	Survival of the Fittest	54	King
257	Turner, Tyehimba	12	Directed Evolution Using Synthetic Biology	54	Lindblom

Physics

258	Echevarria, Hailey	7	Does Mass Affect Distance?	54	Prussing
259	Gomez, Julian	7	Doubling the Torsional Strength of Wood Beam	1	Edison
260	Graves, Kennedy	7	Color vs. Heat Absorption	54	Lindblom
261	Hyder, Syed	7	Anti-Gravity or Thrust?	54	Jamieson
261	Jacob, Ayyad	7	Anti-Gravity or Thrust?	54	Jamieson
262	Maina, Ike	7	Controlling Secondhand Tobacco Smoke	7	Irving
263	Rozelle, Morgan	7	Which Colors Can Bring the Heat?	54	Black
264	Blake, Andrew	8	Performance of a Wind Turbine	54	Wildwood
265	Brown, Jarvis	8	Sour Success	14	Claremont
266	Dace, Fransha	8	The Sound of Music	54	Carnegie
267	Ellis, Ebony	8	Chill Out	14	Claremont
268	Garcia, Emilio	8	Rubber Band Experiment	19	Chgo. Math & Science
269	Guzman, Ashley	8	The String Wars	11	Peck
270	He, Justin	8	The Block Slides Home!	54	Healy
271	Lemons, Joel	8	Dark vs. Light	13	Davis
272	Park, Hyun In	8	Slippery Cleats	54	Ogden
273	Perez, Diana	8	Temperature's Effect on Viscosity	11	Edwards
274	Perez, Pamela	8	Temperature and Bounce	11	Peck
275	Piphus, JoAnna	8	Do Angles Affect Acceleration?	52	U of C - Woodlawn
276	Ulyanov, Anton	8	Warming Up	6	Lincoln
277	Williamson, Peter	8	The Temperature of Color	6	Lincoln
278	Ahsan, Zahra	9	Electromagnetic Radiation and Risk Mitigation	54	Northside
279	Howard, Crystal	9	The Surface Tension of Water	23	Richards
280	Austin, Vichina	10	The Buoyancy of Balloons	24	Hyde Park
281	Dugan, Kelley	10	Cycloidal vs. Involute	54	Lane
282	Flanagan, Anton	10	Amp It Up!	52	Longwood Charter
283	Flax, Daniela	10	Thermoelectric Properties of Bi_2Te_3	54	Lincoln Park
284	Mattingly, Nicole	11	Speed of Light in Gelatin with Laser Pointer	26	Carver Military
285	Reiman, Hannah	11	Futbol Friction	21	Kenwood
286	Rios, Juan	11	Boom!	26	Carver Military
287	Rosero, Valeria	11	Relationship Between Velocity and Pressure	26	Kelvyn Park



Exhibits by Category

Exh	Student Name	Grade	Title	Area	School
288	Saleh, Manal	11	Spatter Investigations	21	Von Steuben
289	Smith, Jermaine	11	Electrical Wavelength	23	Robeson
290	Williams, Jalequa	11	Investigate the Motion of a Pendulum	26	Douglass
291	Causevic, Suad	12	Keep It Cool	54	Lane
292	Evans, Andre	12	The Best Radiation Sponge	54	King
293	Evans, Laquanna	12	Egg Shell Strength	21	Crane
294	Hira, Sana	12	Does Temperature Affect the Viscosity of Oil?	21	Von Steuben
295	Houseton, Wesley	12	Elasticity and Bounce	21	Crane
296	Kuklinski, Nicole	12	Effects of Electromagnetism on Plant Growth	54	Lane
297	Martinez, Diego	12	Altitude vs. Pressure on Crickets	23	Bogan
298	Mussman, Mary	12	Computerized Texture Analysis of Mammograms	54	Northside
299	Rojek, Alexandra	12	Energy Optimization for Synchrotron MicroCT	54	Northside

Zoology

300	Montgomery, Devin	7	Genius Genes	54	Lindblom
301	Carreon, Elvia	8	Which Color is More Dominant in Mice?	6	Salazar
302	Pohlad, Paige	9	The Effect of Acetaminophen on Planarian Worms	54	Young, W

EXHIBIT JUDGING
FRIDAY

Category	Elementary			Secondary			Total			Team Projects
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Aero Space Science	3	1	4	1	1	2	4	2	6	0
Behavioral Science	4	6	10	2	8	10	6	14	20	0
Biochemistry	1	4	5	5	12	17	6	16	22	0
Botany	4	8	12	4	10	14	8	18	26	0
Chemistry	10	21	31	7	20	27	17	41	58	1
Computer Science	2	1	3	1	1	2	3	2	5	0
Earth Science	0	1	1	2	0	2	2	1	3	0
Electronics	2	1	3	2	0	2	4	1	5	0
Engineering Science	6	3	9	6	2	8	12	5	17	0
Environmental Science	8	9	17	15	13	28	23	22	45	0
Health Science	1	7	8	3	8	11	4	15	19	0
Materials Science	1	4	5	5	2	7	6	6	12	0
Mathematics	2	1	3	1	1	2	3	2	5	1
Microbiology	5	3	7	7	2	9	11	5	17	1
Physics	12	9	21	7	15	22	19	24	43	1
Zoology	1	1	2	0	1	1	1	2	3	0
TOTAL ►	62	80	141	68	96	164	129	176	306	4

Student Exhibitors

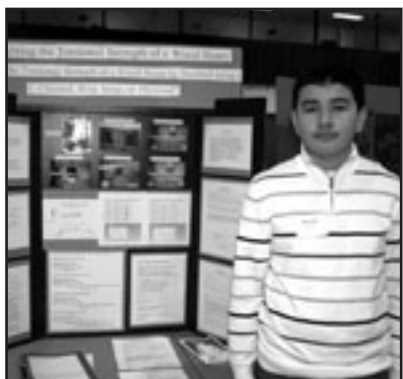
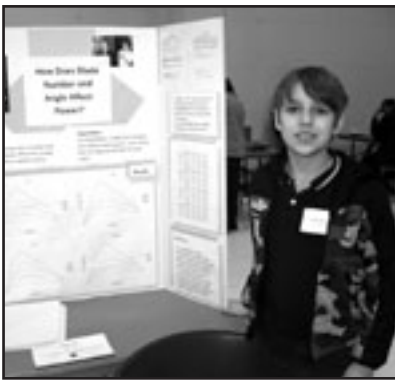
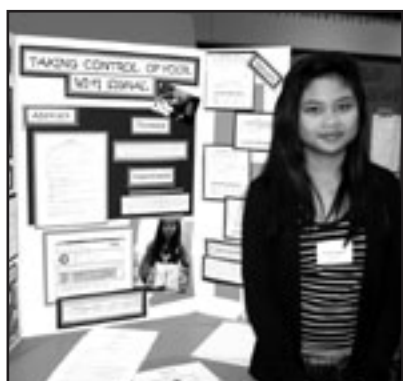
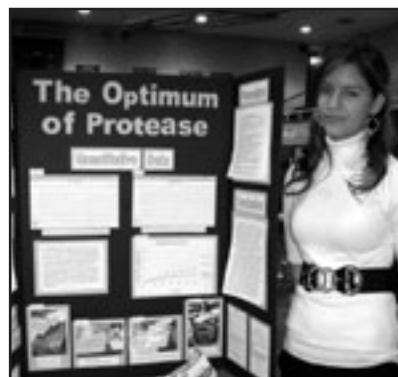
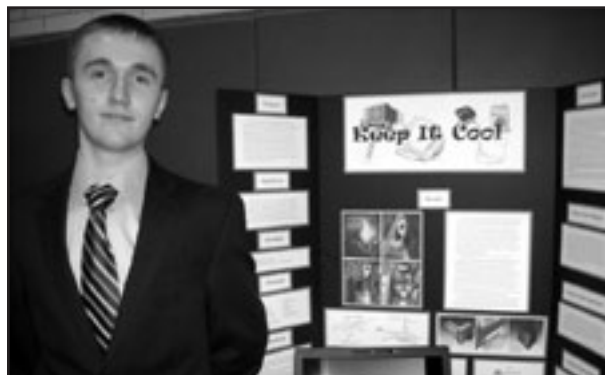
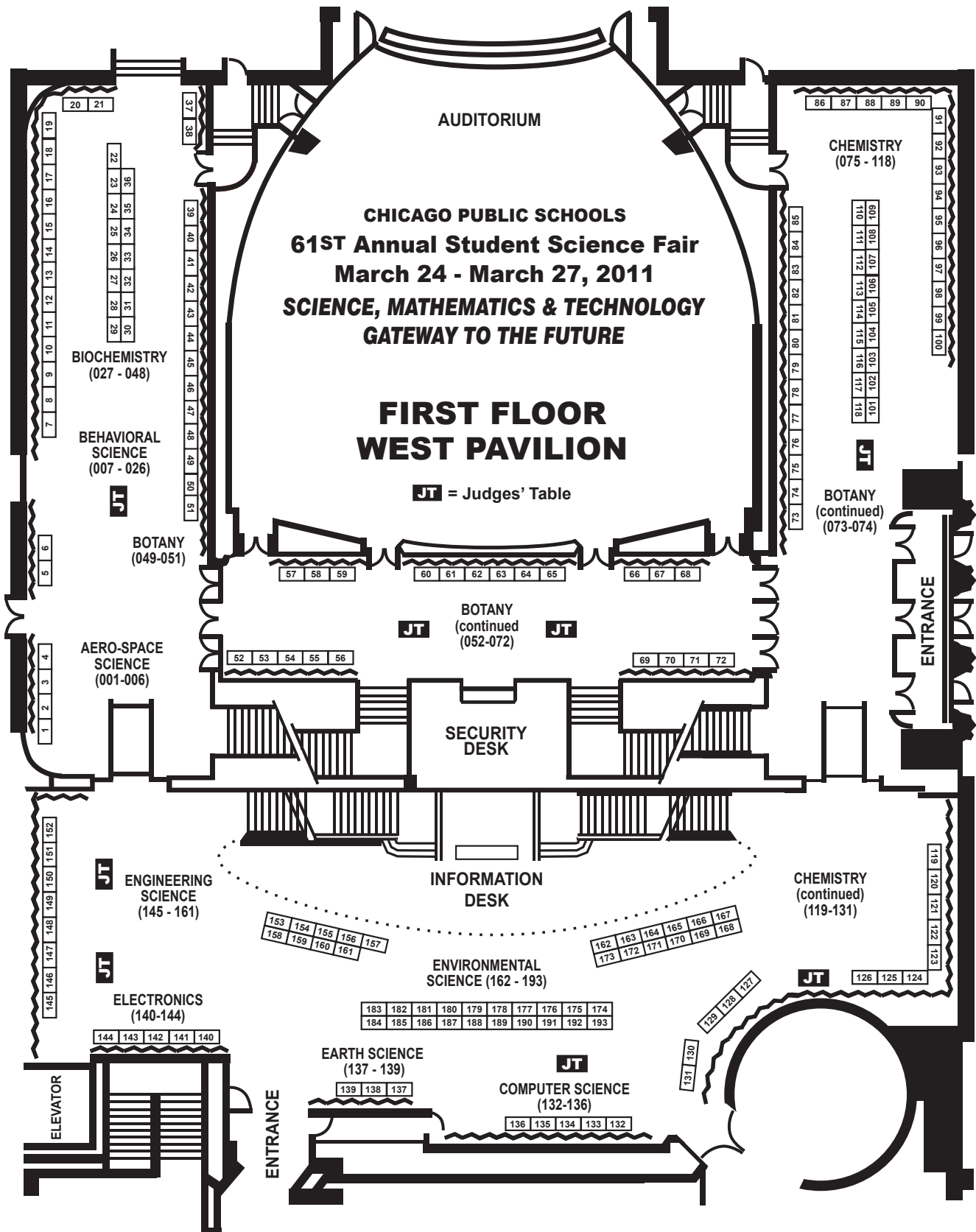
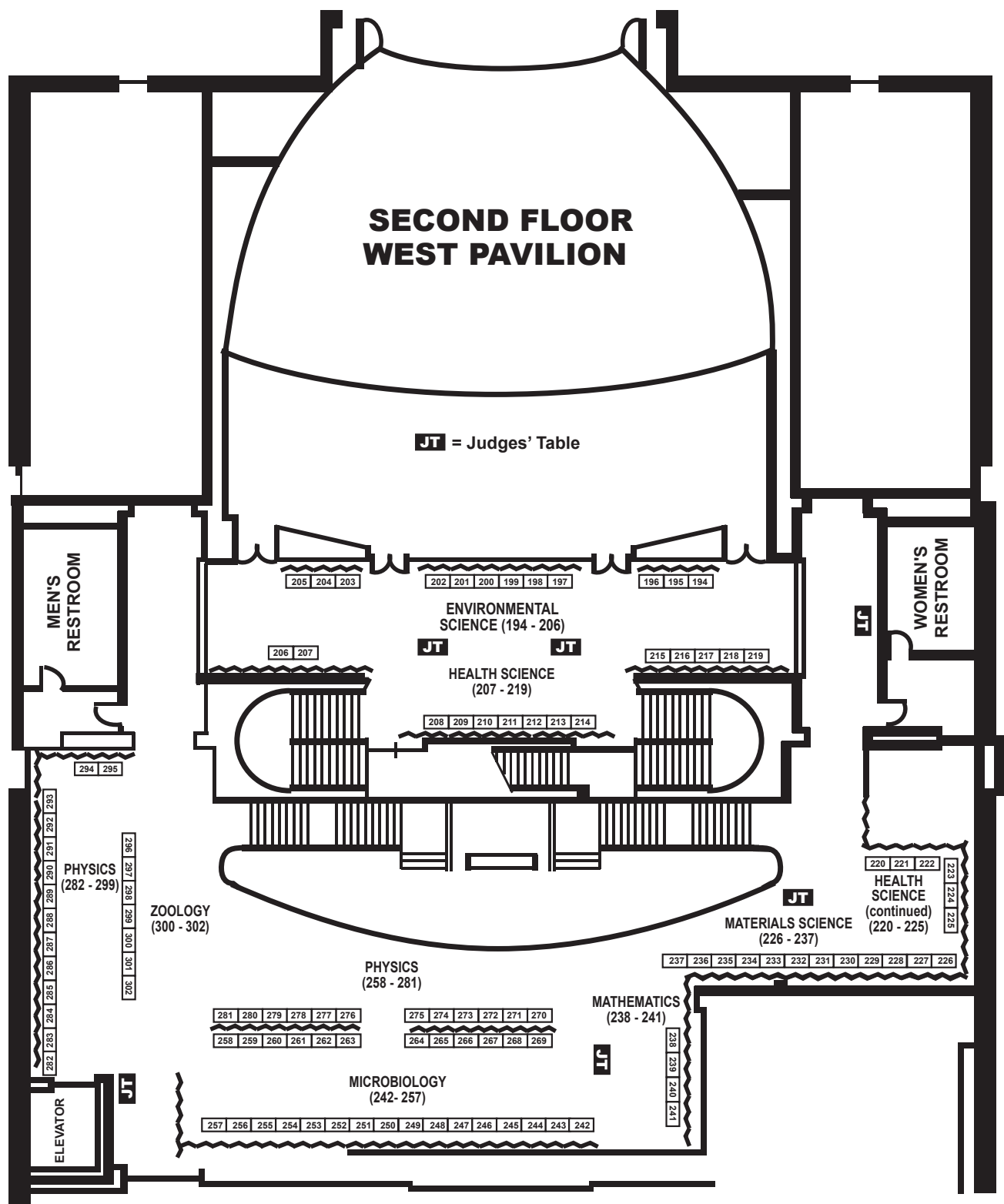


EXHIBIT JUDGING
FRIDAY



EXHIBIT JUDGING
FRIDAY





**EXHIBIT JUDGING
FRIDAY**



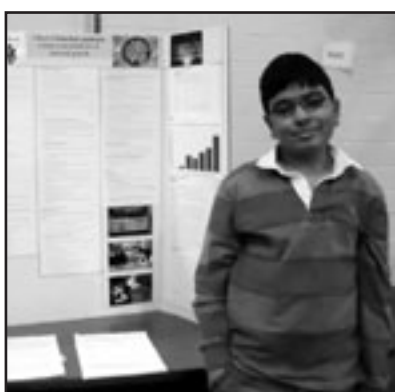
Student Exhibitors



PUBLIC VIEWING & 6TH GRADE
LUNCH SATURDAY



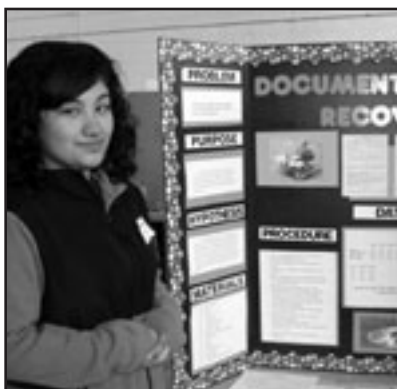
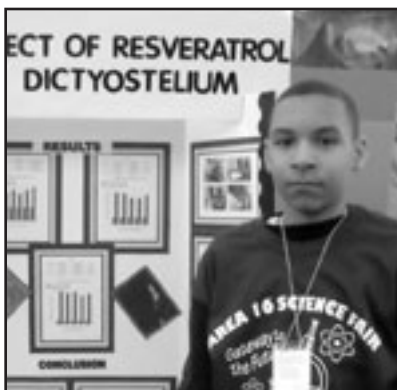
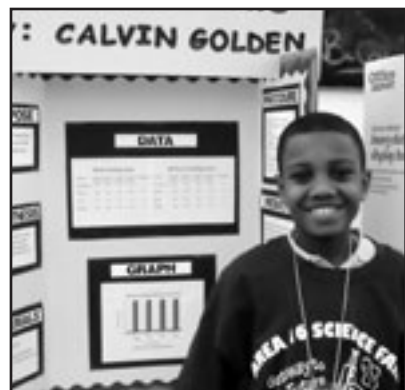
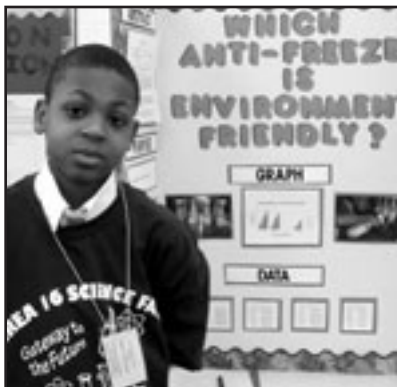
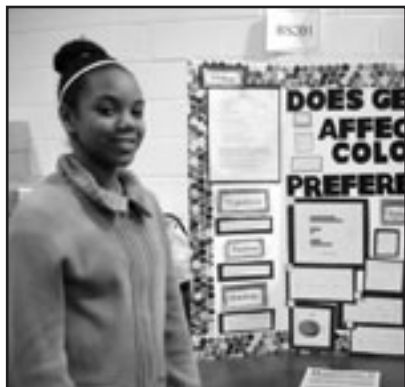
Student Exhibitors



PUBLIC VIEWING & 6TH GRADE
LUNCH SATURDAY



Student Exhibitors



PUBLIC VIEWING & 6TH GRADE
LUNCH SATURDAY



Sixth-Grade Area Winners Recognition Luncheon

Saturday, March 26, 2011

11:45 A.M. – Columbian Room

Welcome

Linda A. Carter
*Chairperson,
CPS Student Science Fair, Inc..*

Comments

Lael Hamilton
Kraft Foods

Pamela D. Sherley
*Executive Director,
CPS Student Science Fair, Inc.*

Presentation of Awards

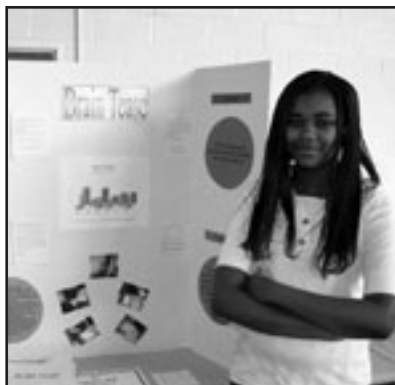
Linda A. Carter

Lael Hamilton

Pamela D. Sherley

Group Photo

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



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



Sixth-Grade Area Winners

List of 2010–2011 Sixth-Grade Area Winners

Area	Student	School
1	Cacuci-Simionas, Roberta Casey, Fiona	Portage Park Peterson
2	Blender, Lily Valentino, Trudy	Blaine Decatur
3	Collins, Christopher	Key
4	Garcia, Michael Marchan, Gabriel Sanchez, Hector	Mozart McAuliffe McAuliffe
7	Alvarado, Edgar McAlpin, Cynthia	Irving Kellman
11	Sanchez, Jessie	Nightingale
13	Cervantes, Marcos Lopez, Nicolas	Daley Daley
14	Jones, Stephon Myelle, Miller	Brownell Park
15	Law, Grace Peterson, Devin Pettaway, Osaze Shou, Zhixin	Ray Pershing Shoesmith Reavis
16	Dye, Austin Murphy, Amir	Vanderpoel Jackson
17	Bell, Chandler Garner, Angelica	Pirie Dixon
18	Everage, Khyllah Nevils, Taylor	Poe Poe
54	Chakravorty, Anil Chang, Ryan, Geldermann, Taylor Haydon, Forrest Helm,, Mariah Rezko, Sarah White, Matthew	Galileo Sheridan Prussing Ogden Murray Lenart Newberry





Awards Convocation

Sunday, March 27, 2011

1:00 P.M. – Auditorium

Pledge of Allegiance

National Anthem

Greetings **Linda A. Carter**
Chairperson, CPS Student Science Fair, Inc.

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

Remarks **Katherine Volk**
Chief Officer, CPS Office of Teaching and Learning

Dr. John Loehr
Science Director, CPS Office of Teaching and Learning

Awards Presentation **Lorraine Wilson**
Co-Chairperson, Special Awards and Tours Committee

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

Winners Recognized by **Nicole Kowrach**
Katherine Volk
Dr. John Loehr
Linda A. Carter

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 **Linda A. Carter**
Chairperson, CPS Student Science Fair, Inc

Closing Remarks **Linda A. Carter**
Chairperson, CPS Student Science Fair, Inc



Special Awards

A variety of awards are provided by individuals, industry, educational organizations, and professional societies. The contributors listed below provide cash awards, bonds, medals, scientific equipment, tour and convention trips, certificates of merit, and subscriptions to professional journals, as indicated. The judges who represented these contributors are also listed below.

At the Awards Convocation on Sunday, March 27, 2011, students whose projects are selected by Special Awards Judges will be the direct recipients of these awards.

If you are interested in becoming a Special Awards contributor, please contact Linda Carter, P.O. Box 803945, Chicago, IL 60680 or lacarter2010@gmail.com.

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

Achievement Award

Three \$50.00 cash awards to first time high school City Science Fair exhibitors

- Anita Misra
- Rita Nelson
- RyAnn Nelson-Jaiyesimi

Adler Planetarium

Four VIP Passes to the Adler Planetarium to exemplary exhibitors

- Demi Brand

Adler Planetarium

Two invitations for high school exhibitor to attend ASW Summer Space Science Workshop

- Demi Brand

Aimee W. Strawn Excellence in Math Award

One cash award to an exemplary math related middle school exhibit

- Mary Jo Tavormina

Alpha Kappa Alpha Sorority, Incorporated

Two \$50 savings bonds (at maturity) to articulate female exhibitors

- Linda Carter

American Association of Zookeepers-Lincoln Pk

Two \$50 savings bonds (at maturity) to exemplary exhibitors

- Susan LaVeau

American Electroplaters and Surface Finishers

A \$1000 savings bond (at maturity), a \$200 savings bond (at maturity), and a \$500 savings bond (at maturity) presented at the American Electroplaters and Surface Finishers dinner meeting

- Andrew Gruda
- Lisa Kringas
- Gerry Stutz
- Robert Alley

American Meteorological Society

One certificate to a Meteorology exhibitor

- Science Service

American Nuclear Society-Chicago Section

One \$100 cash award, one \$50 cash award, and one \$25 cash award, with certificates and a recognition book for each school awarded to projects promoting a peaceful use of nuclear energy

- Roger W. Tilbrook

American Psychological Association

One certificate to an outstanding psychology exhibitor in Behavioral Science

- Science Service

American Science & Surplus

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

- Amanda Herrmann

Anti-Cruelty Society

One \$50 cash award to project that best demonstrates exemplary consideration for animals.

- Tatiana Garrett

Association for Women Geoscientists

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

- Science Service

Association of Women in Science (Chicago)

Four \$50 cash awards to promising young female exhibitors

- Ramille Shaw

ASM International, Chicago Regional Chapter

One \$100 cash award to the best exhibit in Materials Science

- Ralph Daehn

ASM Materials Education Foundation

One certificate to the Most Outstanding Exhibit in Materials Science

- Science Service

Bartley Family Award

One \$50 cash award to an outstanding exhibitor in microbiology

- Jeanette Bartley

Bright Future Science Award

Two \$50 and one \$25 cash award to male exhibitor in areas of mathematics or life science

- Kareem Tunstall

Bill and Nading Thompson Award

One \$100 cash award to an outstanding exhibitor

- Kathleen Thompson

Camacho Math and Science Award

Four \$25 cash awards to outstanding minority female exhibitors

- Lena Camacho



Special Awards

Carolina Biological Supply Company

Four \$50 cash awards to an elementary student exhibitor

- *Dave Kreuzer*

Cassandra Price Biological

One \$25 cash award to an outstanding exhibitor

- *Patsy Moore*

CETMC (Chicago Elementary Teachers of Math Club)

Special recognition for project that best demonstrates elementary mathematics

- *Jim Oehler*
- *Carol Miller*

Charles Braxton Brown Jr. Award of Ingenuity

Two \$50 cash awards to a minority student exhibiting ingenuity in experimentation

- *Vincent C. Brown*

Charles Braxton Brown Jr. Award of Excellence

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

- *Vincent C. Brown*

Cheryl Deese Science Award

One \$50 cash award to an exemplary exhibitor

- *Cheryl Deese*

Chicago Infectious Disease Research Institute

One \$250 cash award for outstanding work in the field of microbiology, bacteriology or infectious disease.

- *Diane Patton*
- *Jill Weinstein*
- *Sally Weinstein*

Chicago Intellectual Property Alliance (CIPA)

One First Place \$500 cash award and assistance filing a patent application, one Second Place \$300, one Third Place \$200 cash award w/plaques to "Most Inventive" projects

- *Mike Harlin, Esq.*
- *Gina Bickwell*

Chicago Principals and Administrators Association

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

- *Clarice Berry*
- *Walter Pilditch*

Chicago Zoological Society - Brookfield Zoo

Ten family membership to exhibitors who demonstrate potential and forward thinking in conservation or animal welfare

- *Jennifer Gibson*

Christine M. Krupa Award

One \$250 cash award to an outstanding Mathematics exhibitor

- *Christine Krupa*

D. Lewis Future Science Star Award

Four \$25 cash awards to promising scientist

- *Deborah Lewis*
- *Linda Carter*

David A. Page Exemplary Math Award

One cash award to an exhibitor with a math related project

- *Mary Jo Tavormina*

Delana W. Little Cluster 6 Award

Two \$50 cash awards to exemplary Area 17 exhibitors

- *Delana Little*

Delta Sigma Theta Sorority Inc.

Two \$100 savings bond (at maturity) to an outstanding exhibitor

- *Judy Walter*
- *Yamilton Brown*
- *Linnie Sims*
- *Hattie Burton*

Discovery Channel Young Scientist Challenge

An invitation to participate in the Discovery Channel Young Scientist Challenge

- *Science Service*

Dr. Allen L. Wright Orthopedic Surgeon Award

One \$50 gift card to an exemplary exhibitor

- *Morgan Swain*
- *Leslie Swain Store*

Dr. Janice M. Buckley Perseverance Award

One \$25 cash award to a 7th grade exhibitor with creative display board

- *Linda Carter*
- *Tamara Nolan*

Dr. Susan Engel Medical Award

One \$50 cash award to a medically related high school project

- *Susan Engel*

District Mathematics Specialist Award

Three \$50 cash awards to exhibitors that best demonstrates the use of data representation and analysis

- *Karen Holly*
- *Jesch Reyes*
- *Katrena Washington*
- *Rickey Murff*

Dynamic Duo Science Award

A souvenir lanyard to each exhibitor and committee chairperson

- *Barbara Dubielak- Wood*
- *Linda Carter*

Environmental Sustainability Award

Two \$50 cash awards to exhibitors whose exhibit are focused on sustainable development

- *Angela Dumas*



Special Awards

Ezell Smith Award

One \$100, one \$50, and one \$25 cash award to projects demonstrating outstanding use of scientific method, original reporting and clear explanations

- *Edna Smith*
- *Michelle Smith*
- *Ryan Smith*

FBC Memorial Foundation for Assisted Living Award

One \$50 savings bond (at maturity) to an exhibitor working on wellness

- *Velma Chiles*
- *Sammiesteen Green- Haines*

Field Museum

A family pass to the Field Museum for an outstanding elementary exhibitor

- *Jessica Hankey*

First Lady Award in honor of Michelle Obama

One \$300 cash award to an outstanding female exhibitor

- *Melanie Wojtulewicz*

Follett Library Resources

Special library resources to outstanding exhibitors

- *Melissa Smith*

Frey Scientific

One \$50 Frey gift certificate for items from the on-line catalog to five outstanding middle school exhibitors and a \$50 gift certificate to their Teacher Sponsor

- *Vince Zaccardi*

GE Energy Services

One \$500, one \$300. and one \$200 cash award to renewable energy projects

- *Andrew Leon*

Gerald Rudnick Technology Award

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

- *Gerald Rudnick*

Give Back Because I've Been Blessed Award

Four \$50 cash awards to outstanding Area 17 exhibitors

- *Javier Hernandez*

Gillespie Rozelle Science Award

One \$50 cash award to an outstanding exhibitor

- *Monica Rozelle*

Grace Educational Resources

A 61st Annual Science Fair souvenir sports bag to each exhibitor and committee chairperson

- *Jim Burnette*
- *Bert Crossland*

Granular Materials Award

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

- *Paul J. Dolan Jr.*

Hambrick Opportunities Unlimited

Two \$50 cash awards to exhibitors with creative scientific display

- *Arlene Hambrick*

Heartland Angels

One \$50 cash award to a discovery that can be converted into useable product

- *Ronald L. Kirschner*

Henry Palmisano Memorial Fishing Foundation

Special recognition to an exhibitor that conserves natural resources or focuses on living green

- *Tom Palmisano*

Hollander Storage and Moving

One \$100 cash award to an outstanding Physics exhibitor

- *Joseph & Shirlee Hollander*

IJAS

Accommodation for the IJAS state exposition to outstanding exhibitors

- *Anne Marie Sherry*

IJAS Essay Finalists

One First place \$250, one second place \$125, one third place one \$75 and six \$25 cash awards to outstanding high school writers and one First place \$250, one second place \$125, one third place \$75 cash awards to outstanding elementary writers

International Union of Operating Engineers

Twenty \$100 cash awards to outstanding exhibitors

- *William Iacullo*

ISEF

A trip to the International Science and Engineering Fair

- *Pamela Moy*

ISEF

A trip as alternate to the International Science and Engineering Fair

- *Pamela Moy*

I. Rivera, L. Wallberg, T. James, J. Rogers Science Award

Four \$50 cash awards to middle school exhibitor with best use of experimenting using the scientific method

- *Eddie Marie Gonzalzes*

Illinois Speech-Language-Hearing Association

Two \$100 cash awards to project related to communication

- *Denise Prohaska*

Intel Computer Science Award

Certificate to an exhibitor for outstanding achievement in Computer Science

- *Science Service*



Special Awards

James Spude

One \$50 cash award to an exemplary exhibitor

- *James Spude*

Jane A Neil Elementary School Science Award

Two \$50 cash awards to outstanding exhibitors

- *Valerie Hardy*

Janel James Sports Award

Special recognition to exhibitor with outstanding sports related exhibit

- *Chandra James*

Jaylin S. Denwood Science Award

One \$50 cash award to an exemplary exhibitor

- *Jaylin Denwood*

John W. Swain Pharmacist / Entrepreneur

One \$50 gift card to exemplary exhibitor

- *Leslie Swain-Store*

Kathryn Peecher Memorial Award

One \$50 (at maturity) savings bond to an exemplary award

- *Vickie Jackson*
- *Marie Clouston*
- *Raul Bermejo*

Keeayla S. Jones Mathematics Excellence Award

One special recognition to an outstanding mathematics project

- *Lanada Jones-Avinger*

Kendall Hunt Publishing Company

Two \$50 cash awards to outstanding energy or environmental exhibitors

- *Tanya Cook*

Leap Learning Systems

Four invitations to a Speech and Learning Summer Training session for articulate exhibitors

- *Michael Levesque*

Linnae Wise Bryant Science Award

Two \$50 cash awards to outstanding minority exhibitors

- *Katrena Washington*
- *Linnae Wise Bryant*

LoEva Reid

Two \$50 cash award to elementary exhibitor

- *Frederick Williams*
- *Leon Williams*

L'Oreal Institute for Ethnic Hair and Skin Research

Three Kindle readers with a \$20 Amazon gift cards and Three \$50 Amazon gift cards plus gift bags to exhibitors with outstanding projects in chemistry, physics, biology or material/environmental science

- *Harold Bryant*

Luba Johnson Science Award

Two \$50.00 cash awards to an outstanding exhibitor

- *Luba Johnson*

Lucretia Hills Creativity Award

Two \$50 cash awards for exhibitors with creative projects

- *Ruby Everage*

Luis Alvarez Capilla Award

Two \$50 cash awards to exhibitors in the area of agriculture

- *Elizabeth Alvarez*

Lula Mae Puritt

One \$50 cash award to an outstanding exhibitor

- *Leon Williams*
- *Frederick Williams*

Marie Curie Sklodowska Award

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

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

Mary J. McKinney Award

Three \$50 cash awards to exemplary middle school projects

- *Gina Grant*

Mars Snackfood US

Eight \$50 savings bonds (at maturity) to exemplary exhibitors related to food industry and sweet treats to all participants

- *Caryn Doerr*

MB Financial Bank

Two \$25 MB Financial Bank gift cards to exemplary mathematics project

- *Wilfredo Nunez*

McGraw Hill School Education Group

Four \$50 cash awards to an exhibitor demonstrating excellent research skills

- *Ardena White*

Metropolitan Cluster

Four \$100 savings bonds (at maturity) to exemplary African-American female exhibitors

- *Judy Walter*
- *Yamilton Brown*
- *Sandra Givens*

Metropolitan Water Reclamation District

Twenty-five invitations to the Commissioner's Award Ceremony and a boat tour of the Chicago River and Lake Michigan with lunch on board

- *Mary Carroll*

Mu Alpha Theta

A certificate to a high school exhibitor creatively using modern mathematics

- *Science Service*



Special Awards

Museum of Science and Industry

A MSI family membership to winners going to IJAS

- Pam Barry

National Oceanic & Atmospheric Administration

One certificate and medallion to an exhibitor in earth conservation

- Science Service

National Society of Professional Engineers

One certificate to an exhibitor to an innovative engineer

- Science Service

National Sorority of Phi Delta Kappa, Inc. Mu Chapter

One \$50 cash award to an outstanding exhibitor

- Katrena Washington

National Technical Association

One \$50 cash award to an outstanding exhibitor

- Melvin Slater
- Cynthia Slater

Norell Cluster 6 Award

One \$50 cash award to an outstanding exhibitor in Area 17

- Antoinette Norrell

Omega Psi Phi Fraternity Inc.

Three \$50 cash awards to outstanding exhibitors

- Melvin Slater

Optical Society of America

One \$200, one \$100, and one \$50 cash award to exhibitors for best use of optics

- George Magerl

Optical Society of Chicago

A \$100 cash award to an exhibitor for the best use of optics

- George Magerl

Pearson Education

Three \$100 cash awards to exemplary exhibitors

- Tamiko Jones

Pearson Education

Three sets of DK Big Ideas of Science References to outstanding exhibitors

- Tim Rogers

Peggy Notebart Nature Museum

A Family membership to PNNM to an outstanding exhibitor

- Lynn Arcuri

Peña Mathematical Excellence Award

Two \$65 cash awards to articulate middle grades exhibitor

- Natasha Buckner-Peña
- Jorge Peña

Pirie School Science Award

One \$50 cash award to an Area 17 promising exhibitor

- Senalda Grady

Radvila Physical Science Award

One DataTraveler to a Physical Science exhibitor

- Nijole Mackevicius

Ricoh Sustainable Development Award

A certificate and eligibility to win a Ricoh digital camera

- Science Service

Rochelle Hawes Bolton Foundation - Award of Excellence

Five \$25 cash awards to exemplary exhibitors in the area of Health Science, Material Science, Botony, or Zoology

Deborah Hawes

- Eddie Marie Gonzalzes
- Herbert Hawes, Jr.

Rush University Medical Center: SAME Network

Three \$100 cash awards to outstanding exhibitors attending a SAME Network School

- Mishawna Manning

Science Enterprise Award

Six \$50 cash awards to exhibitors showing initiative and determination

- Gary Morrissey
- Shirley Davis- Morrissey

Scientific Merit Award

Four \$50 cash awards to exemplary high school exhibitors in botany, microbiology, environmental, biochemistry or zoology

- Rita Nelson
- RyAnn Nelson- Jaiyesimi
- Anita Masra

Scope Shoppe Inc.

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

- Pat Schlinder

Slater Association

One \$50 cash award to an outstanding exhibitor

- Melvin Slater
- Cynthia Slater

Society for In Vitro Biology

A certificate of outstanding achievement for ability and creativity in In Vitro Biology

- Science Service

Society for Science & The Public

A nomination to an outstanding middle school exhibitor to compete in the SSP Middle School Program competition

- Science Service

Society for Technical Communication Chicago Chapter

One \$75 (at maturity) and one \$50 (at maturity) Savings Bond to recognize outstanding written and displayed technical communication by exhibitors

- Chris Hester



Special Awards

Society of Tribologists and Lubricating Engineers

One \$100, one \$60, one \$40 cash award to exhibitor demonstrating knowledge and understanding of lubrication or other industry related interactions

- *Stephanie Kotsios*
- *Selim Erhan*
- *Kuldeep Mistry*
- *Brian Holtkamp*

Stella Price Inspiration Award

Two gift cards to promising middle school exhibitors

- *Patsy Moore*

Student Science Fair Alumni Association

Two \$100 cash awards to high school exhibitors and two \$50 cash awards to middle school exhibitors with engaging projects in Life Science, Environmental Science or Physics

- *RyAnn Nelson- Jaiyesimi*

Stockholm Junior Water Prize

A certificate to an exemplary high school water related exhibit and eligibility to participate in the Stockholm Junior Water State Competition

- *Science Service*

Symposium Award

A \$250, \$125, \$75, \$50 place awards and eleven \$25 participation awards

Teach Our Children, Inc

One \$100 Tyrone K. Smith Memorial cash award for an outstanding project in electronics

- *Tracy L. Raoul*

Teresa Fiske Memorial Fund

Ten \$50 cash awards for outstanding elementary and high school exhibitors using computers and/or mathematics skills

- *Anne Marie Sherry*

Teresa Huggins Math/Science Award

A special recognition to an Area 3 exemplary exhibitor

- *Teresa Huggins*

The Field Museum

A Family Pass to an outstanding exhibitor

- *Jessica Hankey*

United States Air Force

A certificate, Connections Computer Accessories Kit, Slazenger Sport Deluxe Sling and a magnetic floating pen holder to outstanding exhibitor

United States Army

Five certificates of achievement to a high school exhibitor

- *Ashley E. Wade*

United States Navy

A special recognition certificate to deserving exhibitor

University of Illinois at Chicago - Computer Science Department

A iPod (8GB) to an exhibitor who best exemplifies research in Computer Science

- *Dale Reed*
- *Gerry Smith*

University of Illinois at Chicago - Department of Engineering

Five \$200 cash awards to exhibitor who best exemplify research in the disciplines of Bioengineering, Chemical Engineering, Civil and Materials Engineering, Computer Science, Electrical and Computer Engineering, and Mechanical and Industrial Engineering

- *Dale Reed*
- *Gerry Smith*

UOP, A Honeywell Company

One Gold Award of \$150 and portfolio, One Silver Award of \$100, One Bronze Award of \$50 to exhibitors in Chemistry, Engineering, Environmental Science or Physics

- *Willie Morrisette*

US Metric Association

One certificate to a high school exhibitor whose project involves quantitative measures and which best uses the SI metric system

- *Science Service*

Wangari Maathai Award

Two \$50.00 Barnes and Noble gift cards for exemplary projects with potential for positive environmental impact

- *Wendy Jackson*

Wilson Cluster 6 Science Award

Two \$50 cash awards to outstanding Area 17 exhibitors

- *Lorraine Wilson*

Wojo Award

One \$200 cash award to an outstanding exhibitor

- *Melanie Wojtulewicz*

World Book Encyclopedia Inc.

A copy of World Book Science Year 2011 to each exhibitor

- *Mark Willy*

Yale Science & Engineering Association

One certificate of merit to an 11th grade Computer Science, Engineering, Physics or Chemistry exhibitor

- *Science Service*

Young Scientist Award

Three \$50 cash awards to high school exhibitors for their scientific research endeavors in botany, chemistry, environmental science, or microbiology

- *Rita Nelson*
- *Anita Misra*
- *RyAnn Nelson- Jaiyesimi*



Special Awards

AWARDS SUNDAY





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.chicagostudentsciencefair.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.chicagostudentsciencefair.org.

Science Fair Central – workshops for student research

Northeastern Illinois University, Harold Washington College, 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. NIU provided profes-

sional advisors; lab set-up space and materials; and photo-copy, computer, and library access. In addition, some modest start-up funds for poster boards, markers, and general display materials were made available. Details are sent in a mailing to teachers at the beginning of each 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 provided funding for over 25 high school science clubs each year for more than 5 years. 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 began funding for one middle school science club in each of the 15 CPS Instructional Areas this year. In addition to stipends and equipment grants, these clubs also have the help of a Peoples Gas engineer who volunteers 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 either the area 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 1,909 scholarships valued at \$2,654,302 to students from 70 Chicago public high schools.



2010 Scholarship Winners

Any prospective June CPS high school graduate who has participated in at least one CPS science fair (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 is 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 2010 high school graduates listed below were selected to receive financial awards by the Chicago Public Schools Student Science Fair, Inc. Scholarship Committee.

Since 1956, Student Science Fair, Inc. has awarded 1,909 scholarships, valued at \$2,654,302 to students from 70 Chicago public high schools.

Key:

Student/High School

College Destination

College Major

Sponsor/Amount

Sana Ahmed/Lake View

University of Illinois at Chicago

Biology/Pre-Med

CPS Student Science Fair, Inc./\$500

Marta Budzikowska/Von Steuben

University of Chicago

Biology/Pre-Med

Donald & Helen Edwards/\$1,500

Nickolas Cernek/Lincoln Park

University of Pennsylvania

Natural Science

CPS Combined Charities Scholarship/\$1,000

Luis Cortes/Amundsen

Knox College

Biology/Pre-Med

CPS Student Science Fair, Inc./\$500

Dantrell Cotton/Chicago Ag. Sci

University of Wisconsin-Madison

Chemistry/Education

ComEd, An Exelon Co.,/\$3,000

Amanda Crawford/Hope

Connecticut College

Physics/Astronomy

CPS Student Science Fair, Inc./\$1,000

Vanessa Florian/Lake View

University of Illinois

Chemistry/Pre-Med

SSF Alumni Association/\$500

Muyuan Gong/Tilden

University of Illinois at Chicago

Biochemistry/Pharmacy

Tom Maloney Memorial/\$1,000

Naomi Harper/Chicago Ag. Sci.

University of Illinois

Food Science/Pre-Med

Motorola Foundation/\$3,000

Grace Mattingly/Lincoln Park

Columbia University

Environmental/Engineering

Harold Keihm Memorial/\$4,000

Kayla Minor/Chicago Ag. Sci.

Penn State University

Electrical/Engineering

Zdunek-Memhardt Scholarship/\$500

Magdalena Mitoraj/Chicago Academy

Dominican University

Biochemistry/Pharmacy

Barbara McCormick Memorial/\$1,000

Marisha Morris/Julian

Clark Atlanta

Biology/Pre-Med

Ray Readus Memorial/\$1,000

Saad Nassar/Northside CP

University of Chicago

Physics/Computer Science

CPS Student Science Fair, Inc./\$1,000



2010 Scholarship Winners

Aparna Nutakki/Kenwood
University of Chicago
Biology/Pre-Med
U of C Tuition Waiver, 4-yr Renewable/\$2,000

Juliette Pirpiris/Taft
Northwestern University
Industrial Engineering
Harold Keihm Memorial/\$1,000

Qadija Qadri/Northside CP
University of Illinois at Chicago
Biochemistry/Research
UIC Tuition Waiver, 4-yr Renewable/\$10,000

Fransely Robles/Steinmetz
University of Illinois at Chicago
Biology/Neuroscience
CPS Student Science Fair, Inc./\$500

Andrea Sanders/Chicago Ag. Sci
Western Illinois University
Biology/Zoology
Blum-Kovler Foundation/\$1,000

Julia Schenk/Payton
Washington University
Biology/Pre-Med
CPS Student Science Fair, Inc./\$500

Jorge Silva/World Language
Illinois State University
Chemistry/Math/Education
Chicago Teachers Union/\$500

Larry Stribling/World Language
University of Illinois
Biology/Neuroscience
Rosenbaum Scholarship/\$500

Antonio Tines/Bronzeville
Western Illinois University
Computer Science
CPS Student Science Fair, Inc./\$1,000

Joanna Wudarczyk/Taft
University of Illinois at Chicago
Nursing/Pediatrics
CPS Student Science Fair, Inc./\$500

Mengyi Xu/Lincoln Park
Princeton University
Biology/Research
Allen Nelson Memorial/\$1,000

Linda Zhou/Lake View
University of Wisconsin-Madison
Biology/Pre-Med
Geri Blakley Memorial/\$1,500



2010 Scholarship Winners



Number of Scholarships Awarded (1956 – 2010)

Map no. School Scholarships

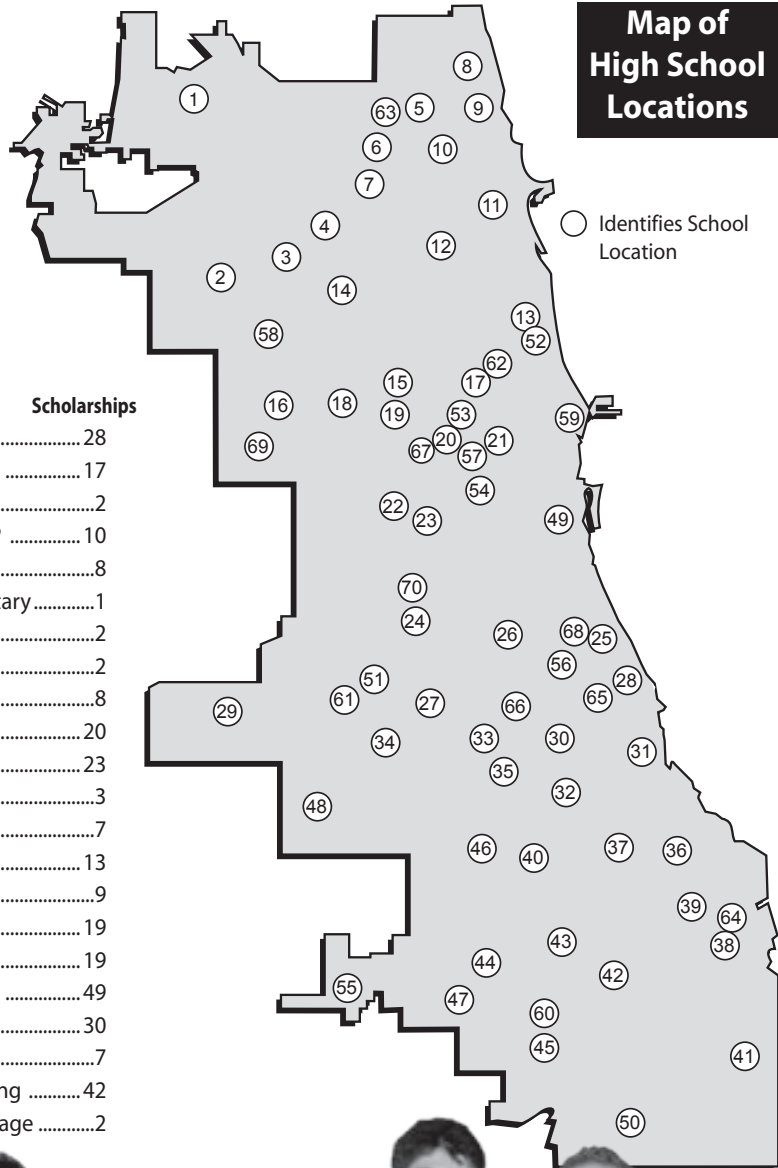
10	Amundsen	24
16	Austin	8
64	BEST	1
57	Best Practice	1
48	Bogan	27
38	Bowen	15
68	Bronzeville.....	1
60	Brooks	3
46	Calumet	4
50	Carver	5
69	Chicago Academy	1
55	Chicago Ag. Sci.....	39
39	Chicago Voc.	7
15	Clemente	1
42	Corliss	11
20	Crane	1
53	Cregier	2
51	Curie	13
49	Dunbar	1
56	DuSable	3
65	Dyett	1
30	Englewood	4
22	Farragut	4
45	Fenger	14
18	Flower	1
03	Foreman	24
27	Gage Park	4
61	Hancock	4
43	Harlan	5
35	Harper	4
23	Harrison	4
37	Hirsch	5
66	Hope	2
34	Hubbard	15
31	Hyde Park	16
59	Jones	4
54	Juarez	3
44	Julian	4
24	Kelly	11
14	Kelvyn Park	11
29	Kennedy	14
28	Kenwood	15
25	King	2
11	Lake View	10
12	Lane	100
13	Lincoln Park	113
33	Lindblom	20
19	Marshall	2

Map no. School Scholarships

05	Mather	28
47	Morgan Park	17
52	Near North	2
63	Northside CP	10
62	Payton	8
67	Phoenix Military	1
58	Prosser	2
32	Robeson	2
07	Roosevelt	8
04	Schurz	20
09	Senn	23
40	Simeon	3
36	South Shore	7
02	Steinmetz	13
08	Sullivan	9
01	Taft	19
26	Tilden	19
06	Von Steuben	49
41	Washington	30
17	Wells	7
21	Whitney Young	42
70	World Language	2

Map of High School Locations

○ Identifies School
Location





ComEd High School Science Club Program 2009 - 2011

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 materials and supplies. The primary objective of the ComEd Science Club Program is to provide guidance to students interested in developing science fair projects.

Amundsen

*Eman Sarhan ***

Bogan

*Stephen Farr **

*Margaret Farr **

Brooks

*Aurora Tyagi **

Carver Military

*Savita Padmanabhan ***

Chicago HS for Agricultural Science

*Daniel Martin **

Chicago Military

*Amanda Morsch **

*Anthony Frontera **

Chicago Vocational Career Academy

*Joni Ann Jones-Chaney **

Corliss

*Jamiiu Sokoya ***

*Nicole Gabriel **

Crane

*Stacie Chana ***

Curie

*Nina Hike-Teague ***

*Elva Witt **

Harlan

*Alberta Lawrence-Smith **

Hope

*Carrie Kessinger **

*Nicholas Roumpakis **

Hyde Park

*Maya Raja ***

Infinity

*Charlotte Wood-
Harrington **

Julian

*Monique Murray ***

*Derrick Jones **



Kelvyn Park

*Thomas Unger **

*Larry Perez **

King

*Alicia Choi **

Lake View

*RyAnn Nelson-Jaiyesimi ***

Payton

*Walter Kinderman **

*Nikolaus Barge **

Phoenix

*Beatrice Jaji ***

*Dennis Carroll **

School of Leadership

*Eulette Arrington-Harris **

Schurz

*Syed Qadri **

*Harriet Smith **

Taft

*Brenda McGeever **

Washington

*Daniel Wills **

*Clinton Graham **

World Language

*Ruquiyah Rahman-Aquil **

* 2009-2010 Club Sponsor

**2010-2011 Club Sponsor



Science Fair Volunteers

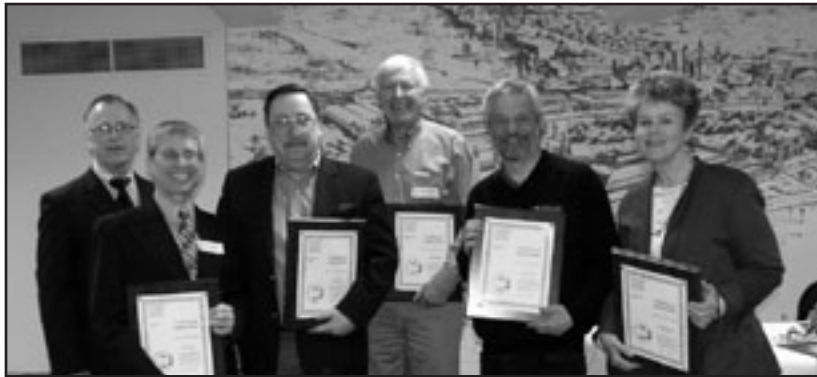
On the following pages are the names of almost 1300 people who give of their own time and of themselves to make the CPS Student Science Fair possible. **THANK YOU!**



THANK YOU



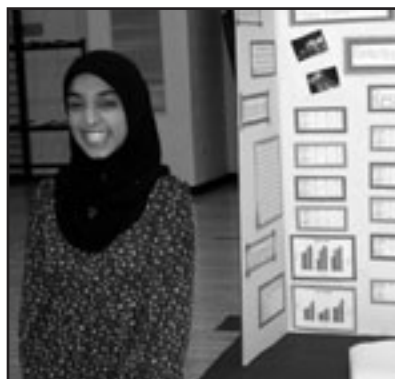
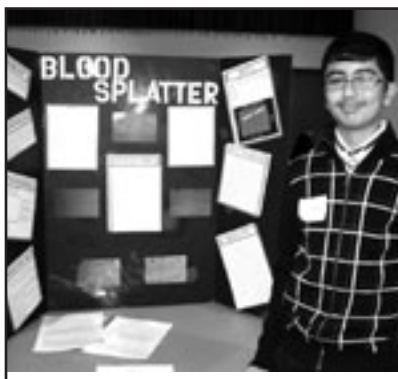
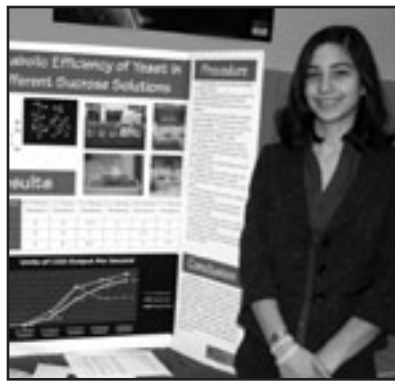
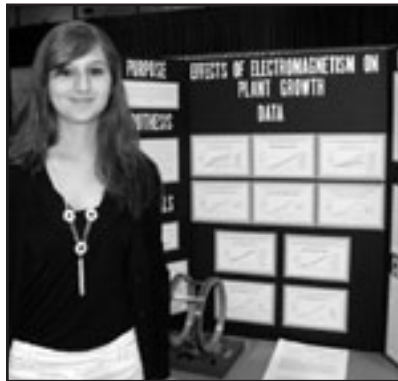
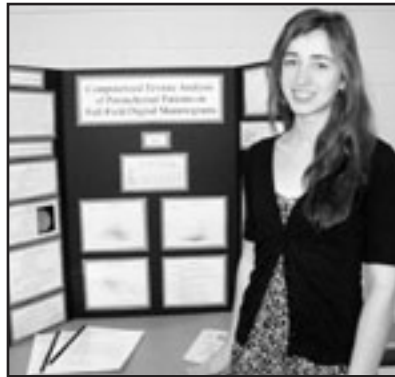
Faces of the Student Science Fair



THANK YOU



Faces of 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 60th Annual CPS Student Science Fair.

Thank you and congratulations for a job well done!

Dorian S. Abbott
University of Chicago

Paula Adams
A T & T

James Aderhold
Gas Technology Institute

Annie Beryl Akuamoah
Peoples Gas

Syed W. Ali
ComEd/Exelon

Larry Alofs

Mash Anglokar
Geometric Americas, Inc.

Kelley Arrington
ExxonMobil

Joshua Aumick
Peoples Gas

Peter Austin, DDS
Oak View Dental Group

Joy Austria
Neuroimaging Science Associates, LLC

John Bagley
Independent Productions

Rosette M. Bagley, R.N., BSN

Shawn Bairstow
Baxter Healthcare Corporation

Sarah Baker

Christine Baldwin R.D. L.D.N.

Richard E. Barr

Omar Barraza
ExxonMobil

Kelly Bartlett
Nalco Company

Donald Baumgartner
USEPA

Vernon Bell
University of Chicago

Thomas G. Benjamin
Argonne National Laboratory

Rudy Bernath

Pat Billing-Medel
Abbott Laboratories

Alexis Billingslea
Illinois Department of Transportation

Sanford Blum

Leticia Bombino
Peoples Gas

Adam Borrelli
U. S. Army Corps of Engineers

Malcolm F Boyle

Donna S. Bracey
The Carter Ware Group

Cyrus Bracey
Federal Aviation Administration

Paul Bredael
Peoples Gas

Wayne Bretl
Zenith Electronics Corporation

Pat Bridges
Peoples Gas

Kim E. Brooks
Underwriters Laboratories Inc.

Alexis Brown
Illinois Department of Transportation

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The following individuals, in addition to the Symposium Committee, generously volunteered their time and expertise on Saturday, January 26th, 2011 to read research and essay papers submitted for evaluation. *Thank you, Symposium Readers!*

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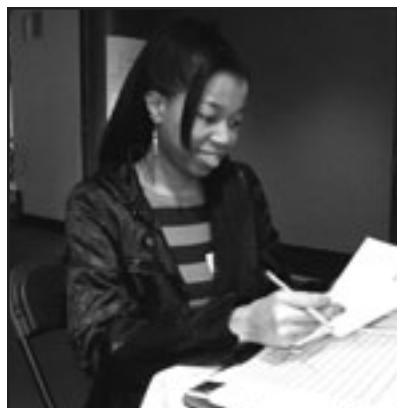
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Many thanks go to the Area and Regional Science Fair Committees, who contribute their time and effort to create the events at which the best of the projects from the school science fairs are presented and judged. Though the focus of the event is on students' projects, these events succeed due to the care and attention to detail of those people working on arrangements, credentials, exhibits, judging and safety committees.

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Elementary Area Science Fair Committees are chaired by the science coaches or specialists in the Area Office. The committees may include the lead science teachers from participating schools and the chairpersons' Area Office colleagues. Their effort, often extending beyond the limit of the work day is greatly appreciated.



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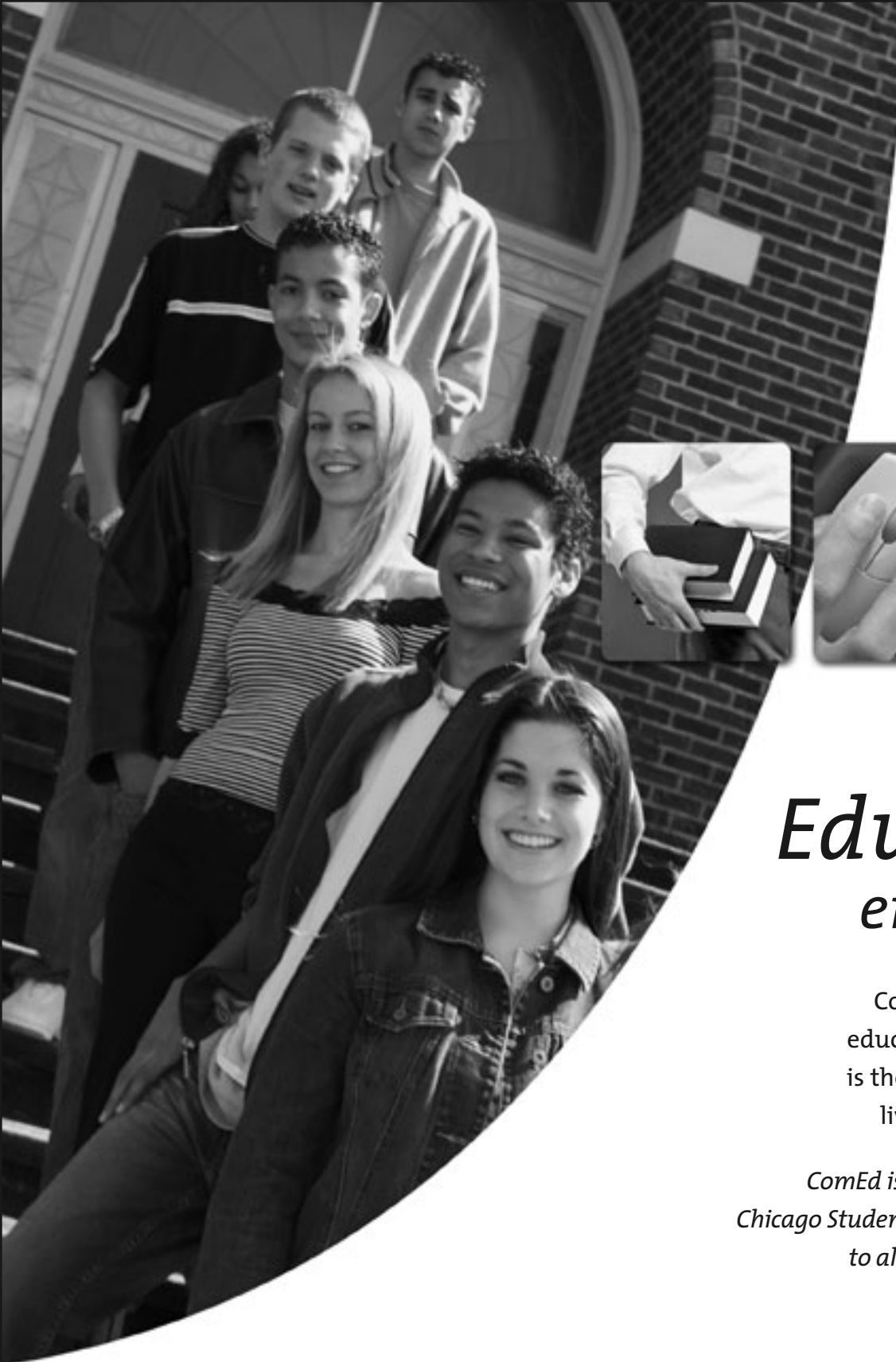
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- The parents, teachers, and other adults who inspired the young people in various aspects of their projects
- The engineers, scientists, and mathematicians who volunteered their services to help students develop their research
- Faculty and administrative personnel who organized the school science fairs which give students their first opportunity to present their research to judges

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