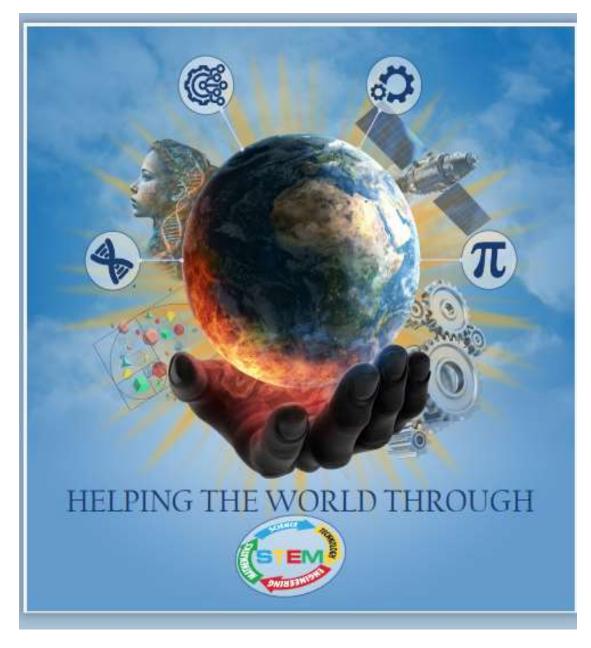
### 2024 PROGRAM BOOK

### 74<sup>th</sup> ANNUAL CPS Exhibition of Student Research CHICAGO PUBLIC SCHOOLS STUDENT SCIENCE FAIR, INC

### Helping the World Through STEM



2024 EXHIBITION OF STUDENT STEM RESEARCH Illinois Tech, Wednesday, March 13- Friday, March 15, 2024 Awards Presentations, Saturday, March 16, 2024





**City of Chicago** Mayor Brandon Johnson

#### **Chicago Board of Education**

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#### Kelli Easterly

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Chicago Public School Student Science Fair, Inc

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In memory of Luba Johnson

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## **Schedule of Events**

### Thursday, March 14, 2024- Symposium

8:30 A.M. – 11:30 A.M	Symposium Morning Sessions				
	(Rooms: HH OO2, HH 003, & HH 010)				
11:30 A.M 12:45 P.M	Symposium Luncheon (Hermann Hall Expo)				
by invitation only					
	Guest speaker- Kimberly Moore, founder of KDM				
	Engineering and Calculated Genius				
1:00 p.m 3:30 p.m.	Symposium Afternoon Sessions				
	(Rooms: HH OO2, HH 003, & HH 010)				

### Thursday, March 14, 2024- Project Setup

8:00 A.M. – 12:00 P.M	Middle School Setup (Hermann Hall Ballroom)		
12:00 P.M 4:00 P.M	High School Setup	(Hermann Hall Ballroom)	

### Friday, March 15, 2024- Exhibit Judging

7:15 A.M 8:00 A.M.	Judges Breakfast (Alumni Hall)
8:00 A.M 8:30 A.M	Judges Briefing (Hermann Hall Auditorium)
8:30 A.M – 12:00 P.M	Judging of Exhibits (Hermann Hall Ballroom/Gallery
	Academic, Special awards, ISEF
12:00 P.M. – 1:00 P.M	All students' lunches in Hermann Hall Expo
	Judges lunch Hermann Hall Expo/Alumni Room
	ISEF judges' lunch in Hermann Hall Lounge
	Special Awards judge's lunch in Hermann Hall Lounge
1:00 P.M – 3:00 P.M	Judging of Exhibits cont.(Hermann Hall Ballroom)
2:00 P.M 3:00 P.M	Open to the Public
3:30 P.M. – 4:00 P.M	PROJECTS ARE TAKEN DOWN

### Saturday, March 16, 2024 Awards Ceremony

1:00 P.M. – 3.00 P.M.	Awards Ceremony (Hermann Hall- Auditorium)
	by ticket only





## 2022-23 CPS Exhibition of Student STEM Research

## Symposium



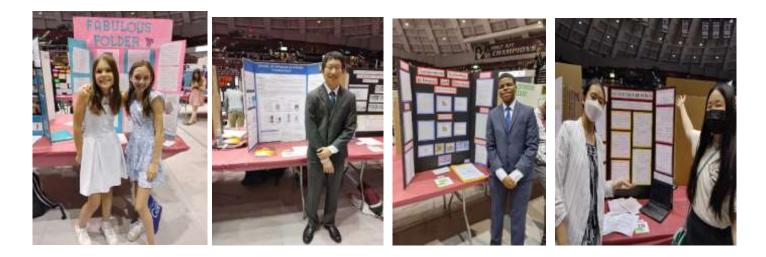




DoSTEM Museum of Science & Industry 2023



## IJAS State Southern Illinois University







# About the Chicago Public Schools Exhibition of Student STEM Research

#### About the Exhibition

We are proud to present the 74<sup>th</sup> Annual Chicago Public Schools (CPS) Exhibition of Student STEM Research. The exhibition originated in 1950 as a vehicle to encourage and motivate young high school science students. Since then, a volunteer army of teachers and administrators has sustained this exemplary program. The objectives of the CPS Student STEM Exhibition are to:

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

# School, Regional and City Student STEM Exhibitions

Prior to the 2020-2021 Pandemic, more than 8,000 students enter projects, beginning at the local school level. Local school winners exhibit at the regional level. This 2023-2024 school year, there were over 325 students from 60 schools who competed in their local science fair. The 4<sup>th</sup> Annual Virtual Regional Science Fair. 280 winners from Regional STEM Exhibition of Student Research were held February 2024. There are 280 students participating in the 74<sup>th</sup> <sup>d</sup> Annual CPS Exhibition of Student STEM Research will be IN PERSON from March 14-16, 2024. The CPS Exhibition of Student STEM Research is always held in the spring.

#### Student STEM Symposium and IJAS Essay Contest

Additional components of the exhibition are the CPS Student STEM 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 an essay contest, writing about a given contemporary issue in science.

#### **State and International Exhibitions**

Each year, approximately 50 projects are selected to participate at the Illinois Junior Academy of Science (IJAS) State Fair, and 15 research paper presentations are delivered at the IJAS. This event is scheduled May 3-4, 2024, at Milliken University in Decatur, Illinois. In addition, four top-scoring students from the CPS Exhibition of Student STEM Research will participate at the International Science and Engineering Fair (ISEF), which will be held in Los Angeles, California on May 11-17, 2024.

#### Sponsors

Primarily, the CPS Student Science Fair, Inc. has three sponsoring organizations. The Chicago Public Schools, Office of Teaching and Learning is the host department for CPSSSF, employing the Regional STEM Exhibition Coordinators, CPS/SSF Liaison and contributing operational funds to run the exhibition each year. Illinois Tech (Illinois Tech) is our site host of the citywide Student STEM Exhibition. Chicago-area corporations spearhead the drive within the Chicago business community to obtain the necessary financial support for a successful Student STEM Exhibition experience. People Gas & Energy and ComEd, and Illinois Tech are this year's corporate sponsors.

#### **How You Can Help**

To help the CPS Student STEM Exhibition and encourage students to consider careers in the STEM fields, monetary contributions must be solicited. Without this financial support, the school and regional exhibition support, the production of the high-quality event of the City Exhibition of Student STEM Research, and the participation in the state and international science fairs would be greatly limited.

Please consider being a contributor to the operating fund, scholarship fund, or providing special awards and tours prizes. Please send a letter of interest to contribute to CPS Student Science Fair, Inc., P.O. Box 803945, Chicago, IL 60680-3945, or visit website at cpsstemfair.org.





#### **Contributors 2023-2024** at the time this was published.

#### **Operating Fund**

Donations to the Operating Fund help produce the City Exhibition of Student STEM Research, the Regional Virtual Fair, and programs supporting students' independent research for Student STEM Exhibition.

Academic Sponsor	Executive Circle \$5,000	Patrons-\$500 Minimum
*CPS, Office of Teaching & Learning	*Roy Coleman & Dianna Uchida *Ken Zdunek & Mary	Donors \$100 Minimum *Elizabeth Copper *Denise Gamble
Site Sponsor	Angels-\$1,000 Minimum	*Marty Gartzman
*Illinois Tech	*Anonymous	*Joanne & Kenneth Gray
	*James M. Schaletter Fund(CCF)	*David Gulligan
		*Liz Jones
Corporate Sponsor	*Naylor Pipe Company	
*Peoples Gas Community	*Henry Rosenbaum	

\*Anonymous

#### Scholarship Fund

Donations to the Scholarship Fund go to qualified CPS high school seniors who have submitted a project at the Virtual Regional and City-wide Student STEM Exhibitions and will major in a STEM field in college. Donations to Special Awards go directly to students, whose projects meet criteria set by the donors and are selected by Special Awards Judges.

#### **Benefactors of Academic Scholarships**

- DePaul University
- Illinois Tech (IIT) •
- Loyola University
- University of Chicago
- University of Illinois Chicago University of Illinois Champaign Urbana

#### Angels-\$1,000 Minimum

\*Roy Coleman & Dianna Uchida

- \*Kovler Family Foundation
- \*Alan Insley
- \*Marlyn Levin

\*Henry Rosebaum

\*Melanie Wojulewicz

- **Other Amounts**
- \*Edward Burton
- \*Elizabeth Copper
- \*Susan Cottrell
- \*Barry Finkel
- \*Patricia Gaines
- \*Denise Gamble
- \* Martin Gartman
- \*David Gilligan
- \*Alpha Delta Chapter Of Delta
- \*Joanne & Kenneth Gray
- \*Ethelene Hare
- \*Judith & Philip Hasson
- \*Thelma Bond-Johnson
- \*Ernest Kaminski
- \*Miichael & Marshan Leib

\*Rudy Lubov

\*Eva Pitts

\*Mark Renz

\*Joan Rog

\*Steven McVeigh

\*Rosemary Smith

\*Donna Tarbunas

\*Kenneth & Andrea

Tyszkiewicz

\*Lewis & Deonne Wright

\*Karen Strabel

\*Lynne White

\*Allan & Mary Reisberg





#### Special Awards 2023-2024 at the time this was published

Donations to the Scholarship Fund go to qualified CPS high school seniors who have submitted a project at the Virtual Regional and City-wide Student STEM Exhibitions and will major in a STEM field in college. Donations to Special Awards go directly to students, whose projects meet criteria set by the donors and are selected by Special Awards Judges.

#### Angels-\$1,000 Minimun

- Fogleson Family Foundation
- Illinois Intellectual Property Alliance
- Omega Psi Phi-Iota Chapter

#### **Other Amounts**

- Charles B. Brown Jr
- Janice Lemar Brown
- Charms, Inc
- Chicago Section STLE
- Copper's Encourgement Award
- Denise Gamble
- Gonzalzles, Rivera, Wahlberg, James, Roger Award
- Illinois Speech-Language
- Carolyn McBride
- Gary Morrissey
- National Technical Association
- Dixie Reyes
- Science Merit
- Cynthia Slater Insurance Agency
- Sharper Focus
- Slater Association
- Teach Our Children, Inc.
- Young Scientists





## **Symposium and Essay Contests**

### **Symposium Information**

Symposium is an integral and popular feature of the Chicago Public Schools Exhibition of Student STEM Research. This event held on Thursday, March 14, 2024, takes place at Illinois Tech in Hermann Hall's lower level. Student presenters from Grades 9-12, through their teacher sponsor, first submit a scientific research paper. In January/February, a committee of volunteer readers evaluate these papers, and these research papers were chosen to be presented on March 14, 2024. 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 finalists are selected to participate at the Illinois Junior Academy of Science (IJAS) State Science Fair at Millikin University in Decatur, Illinois on May 3<sup>rd</sup> and May 4<sup>th</sup>, 2024.

Name	City Paper Number	Туре	Grade	Category	School	NTWK	
AEROSPACE							
Ramona Harold	601 E	E	9th	Aerospace Science	Amundsen High School	14	
Olivia Jones	602 E	E	10th	Aerospace Science	Lane Tech College Prep HS	14	
Eva Weber	603 E	E	11th	Aerospace Science	Northside College Prep	14	
			BEHAVI	ORAL SCIENCE			
Stephany Aguirre	604 E	E	11th	Behavioral Science	Carver Military Academy	17	
Brianna Arrez	605 E	E	11th	Behavioral Science	Lane Tech College Prep HS	14	
Sydney Coomer	606 E	E	12th	Behavioral Science	Lane Tech College Prep HS	14	
Andres Marquez	607 E	E	9th	Behavioral Science	Carver Military Academy	17	
			BIOC	CHEMISTRY			
Diego Landeros	608 E	E	10th	Biochemistry	Lane Tech College Prep HS	14	
Sasha Roth	609 E	E	10th	Biochemistry	Lane Tech College Prep HS	14	
Indigo Wall	610 E	E	10th	Biochemistry	Lane Tech College Prep HS	14	
			E	OTANY			
Annika Hutcheson	611 E	E	11th	Botany	Amundsen High School	14	
			СН	IEMISTRY			
Olivia Chier	612 E	E	9th	Chemistry	Amundsen High School	14	
Yamileth Gamez- Rocha	613 E	E	11th	Chemistry	Carver Military Academy	17	
Adrian Lee	614 D	D	11th	Chemistry	Lane Tech College Prep HS	14	
Payman Rajaie	615 E	E	10th	Chemistry	Lane Tech College Prep HS	14	
Ella Schieleit	616 E	E	11th	Chemistry	Northside College Prep	14	

Noah Wilson	617E	E	9th	Chemistry	Amundsen High School	14	
			EAR	TH SCIENCE			
Nikita Agrawal	618 D	D	12th	Earth Science	Whitney Young HS	15	
	ENGINEERING						
Divinefavour Osuji	619 D	D	11th	Engineering	Lane Tech College Prep HS	14	
			ENVIRON	MENTAL SCIENCE			
Emily Ba	620 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
Elliana Cagua	621 E	E	9th	Environmental Science	Amundsen High School	14	
Riley Coomer	622 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
Alexander Czempinski	623 E	E	11th	Environmental Science	Lane Tech College Prep HS	14	
Akosua Haynes	624 E	E	11th	Environmental Science	Walter Payton	15	
Jason Lukian	625 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
Yairely Marchan	626 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
David Morowitz	627 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
Anna Tataryn	628 E	E	10th	Environmental Science	Lane Tech College Prep HS	14	
Peter Tolzmann	629 E	E	9th	Environmental Science	Amundsen High School	14	
			HEAL	TH SCIENCE			
Matilda Burgess	630 E	E	11th	Health Science	Amundsen High School	14	
Rita Ibe	631 E	E	11th	Health Science	Carver Military Academy	17	
Julia Poulos	632 E	E	10th	Health Science	Lane Tech College Prep HS	14	
Landra Ream	633 E	Е	11th	Health Science	Lane Tech College Prep HS	14	
			MATER	IALS SCIENCE	1		
Hannah Sperling	634 E	Е	10th	Materials Science	Lane Tech College Prep HS	14	
	MICROBIOLOGY						
Griffin Stofko	635 E	E	11th	Microbiology	Lane Tech College Prep HS	14	
Lana Surgit	636 E	E	10th	Microbiology	Lane Tech College Prep HS	14	
			P	HYSICS			
Jacklin Richman	637 E	Е	10th	Physics	Amundsen High School	14	
			Z	DOLOGY			
Jaylee Pratt	638 E	E	9th	Zoology	Carver Military Academy	17	





### **IJAS Essay Contest**

Also evaluated by volunteer readers during January/February Symposium & Essay virtual reading sessions are the essays. As an ancillary activity of the State Science Fair, the IJAS sponsors an essay contest for students, in Grades 7-12, who conduct library research and prepare a 1500-word essay. The 2023-2024 prompt is: **From Grains to Brains!** Four top student essays will be forwarded to the IJAS for evaluation at the state level. These fianlists are listed below.

## **2024 Essay Contest Semi-Finalists**

Student Name	Grade	Essay Title	School	Network
Platon	8th	Sheltering Agriculture from Natural	Grissom Elementary School	13
Belesiotis		Disasters		
Paulina Briones	12th	The California Drought (2012-2017) and	Gurdon Hubbard High School	16
		Its Future Evolution		
Marco Garcia	12th	Aral Sea and Preventative Measures	Gurdon Hubbard High School	16
Katie Lopez	12th	The Impact of Deforestation	Gurdon Hubbard High School	16

#### Thursday, March 14, 2024 High School Symposium Presentation Day 8:30 a.m. until 3:30p.m.

**ALL PARTICIPANTS** must dress professionally. This does <u>not</u> include jeans, sweatshirts, t-shirts, shorts, or mini-skirts and/or halter-tops. This is a professional occasion. Professional attire is expected.

<u>Morning session presenters</u> arrive at Illinois Tech-Hermann Hall by 8:30 a.m. and Go To Station #1. Sign in and obtain your ID Badge and Badge Holder, and then go to Illinois Tech – Alumni Lounge.

#### Symposium Luncheon with Guest Speaker,

<u>Afternoon session presenters</u> will arrive at the Illinois Tech – by 11:00 p.m. and Go To Station #1. Sign in and obtain your ID Badge and Badge Holder, and then go to Illinois Tech – Alumni Lounge.





Grade	Туре	Project Title	School Name
		Aerospace	
7th	Exp	The Study of Airplane Brakes	Budlong
			Franklin Fine Arts Center
			Amundsen High School
			Lane Tech College Prep
			Northside Prep
1141	Lvb	Crater Morphology and Density of Editar Maria	
Zth	Evn	Atomic Aquanonic	Chappell School
			Amundsen High School
301	Lvb		Amundsen nigh School
Zth	Evn		Burley School
			Lenart
7 01			Lenart
8th	Ехр	Is It Love or Is It Chemistry?	Grissom
8th	Exp	How does Caffeine Affect Heart Rate	Lenart
8th	Exp	Identifying AI Text	Newberry Math and Science Academy
8th	Ехр	Reading Online Versus On Paper	Skinner North Classical School
8th	Ехр	Does Music have an Effect on Retention?	Skinner North Classical School
Oth	Evn	Music Moves: Reaction Rhythyms	Carver Military Academy
			Payton College Prep
			Carver Military Academy
12th	Ехр		Lane Tech College Prep
70			
7th	Exp	Burn it Down	Taft
7th	Ехр	Which Sport Drink has the Most Electrolytes?	West Park STEAM Academy
8th	Ехр	What Perseveres Meat the Best?	West Park STEAM Academy
		Botany	
7th	Exp	Growing Greens	Chicago World Language Academy
7th	Ехр	Does Compost Help Radish Seeds Grow?	Franklin Fine Arts Center
	-		O vice a vice
7th	Ехр	Which Soil Brand Grows a Plant Faster	Grissom
7th 7th		Which Soil Brand Grows a Plant Faster How do different liquids affect plant growth?	Grissom Palmer Elementary School
	Exp		
7th	Exp Exp	How do different liquids affect plant growth?	Palmer Elementary School
7th 7th	Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights	Palmer Elementary School Skinner North Classical School
7th 7th 8th	Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock	Palmer Elementary School Skinner North Classical School Audubon
7th 7th 8th 8th	Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat?	Palmer Elementary School Skinner North Classical School Audubon Chappell School
7th 7th 8th 8th 8th 8th	Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth?	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy
7th 7th 8th 8th 8th	Exp Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth? How Well Does UV Light Work For Plants?	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy     Hannah G. Solomon     Lenart
7th       7th       8th       8th       8th       8th       8th       8th       8th	Exp Exp Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth? How Well Does UV Light Work For Plants? Flower Power	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy     Hannah G. Solomon     Lenart     McDade Classical Elementary School
7th       7th       8th       8th       8th       8th       8th       8th	Exp Exp Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth? How Well Does UV Light Work For Plants?	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy     Hannah G. Solomon     Lenart
7th       7th       8th       8th	Exp Exp Exp Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth? How Well Does UV Light Work For Plants? Flower Power How do plants grown in different liquids? Does Light Color Affect Plant Growth?	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy     Hannah G. Solomon     Lenart     McDade Classical Elementary School     Vanderpoel     West Park STEAM Academy
7th       7th       8th       8th       8th       8th       8th       8th       8th       8th       8th	Exp Exp Exp Exp Exp Exp Exp Exp Exp Exp	How do different liquids affect plant growth? How Plants Respond to Different Lights Plants Of Rock Which Plants Adapt Best to Heat? What Vegetable? Can Worms Affect Plant Growth? How Well Does UV Light Work For Plants? Flower Power How do plants grown in different liquids?	Palmer Elementary School     Skinner North Classical School     Audubon     Chappell School     Chicago World Language Academy     Hannah G. Solomon     Lenart     McDade Classical Elementary School     Vanderpoel
	7th   7th   9th   10th   11th   7th   7th   7th   7th   7th   7th   8th   8th   8th   8th   10th   11th   11th   11th   11th   11th   11th   11th   10th   10th   11th   12th   7th   7th   7th   12th	GradeType7thExp7thExp9thExp10thExp11thExp7thExp9thExp7thExp7thExp7thExp7thExp7thExp8thExp8thExp8thExp10thExp11thExp9thExp11thExp11thExp11thExp12thExp7thExp7thExp12thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp7thExp	7thExpThe Study of Airplane Brakes7thExpWhat is the Best Shape for Stealth Aircrafts?9thExpEffects of Solar Flares on Radio Signals10thExpEffect of Fin Angle on Bottle Rocket Apogee11thExpCrater Morphology and Density of Lunar MariaThe Study of Airplane Brakes7thExpAtomic Aquaponic9thExpMicrogravity's Affect on Plant GrowthBehavioral Science7thExpHow Piaget's Theory Stands Today7thExpHow Piaget's Theory Stands Today7thExpHow do Incentives Affect our Performance?8thExpIs It Love or Is It Chemistry?8thExpIdentifying AI Text8thExpIdentifying AI Text8thExpDoes Music have an Effect on Retention?9thExpMusic Moves: Reaction Rhythyms10thExpEffect of Mental Factors on Athlete BurnoutBiochemistry7thExpWhat fermented fruit produces the most gas7thExpWhat fermented fruit produces the most gas7thExpWhich Sport Drink has the Most Electrolytes?8thExpWhat Perseveres Meat the Best?Botany

	1		U24 CPS Science Exhibition Participa	I				
Last Name, First Name	Grade	Туре	Project Title	School Name				
Chemistry								
Downey, Jack	7th	-	Bready Or Not: A Crumby Experiment	Beaubien Elementary				
Rynell, Flannery	7th	Exp	Which Moisturizer Works Best?	Beaubien Elementary				
Chase, Catherine Murillo, Sophia	7th	Exp	Tap water Vs. Filtered	Budlong				
Leftridge, A'niylah	7th	Exp	Body Scrub for Sensitive Skin	John D. Shoop Academy				
Reyes, Jake	7th	Exp	Oxidation	Josephine C. Locke Elementary				
Darden, Amelia	7th	Exp	Which Drink Gives You More Electrolytes?	Keller Regional Gifted Center				
Newport, Logan	7th	Exp	Measuring the Viscosity of Pseudoplastics	Keller Regional Gifted Center				
Cobb, Zafira	7th	Exp	Iron Rusting	McDade Classical Elementary School				
Ibarra, Nicole	7th	Exp	Are You Gassy?	McPherson				
Angeles, Lucas	7th	Exp	Turtle Tank Filters: Which Work Best?	Taft				
Epure, Christopher	7th	Exp	Acid Rain is Breaking Down Your House	Taft				
Novak, Anora	7th		Which citrus best prevents brown apples?	Waters				
Crawford, Ariaun	8th	Exp	Which Drink Contains the Most Electrolytes?	Arthur Dixon				
Wear, Danielle	8th	Exp	Shampoo Showdown	Audubon				
Soliman, Isabella	8th	Exp	pH Level and Corrosion	Beaubien Elementary				
Schuch, Frank	8th	Exp	How Do Types of Vinegar Affect Reaction?	Byrne				
Frasor, Margaret Kupiec, Gabriela	8th	Exp	The Effect of Egg Substitutes on Cookies	Ebinger School				
Kopier, Ella Murphey, Caroline	8th	Exp	The effect of bottled water on pH levels	Ebinger School				
Vojtas, Payton	8th	Exp	What are the contaminants in our water?	Ebinger School				
Kelly, Micah Jensen, Evie	8th	Ехр	Get That Vita-C	Franklin Fine Arts Center				
Davis-Carter, Jazirrah	8th	Exp	Confectionary Fire	Haley				
Kalamperovic, Emma Talos, Maya	8th	Ехр	How Clean Is Chicago's Water?	Hannah G. Solomon				
Schott, Josephine Mak, Michelle	8th	Ехр	Which Water Fountain Is the Best Quality?	Hannah G. Solomon				
Gonzalez Vazquez, Alondra	8th	Exp	An Acidic Situation	McPherson				
Scales, Chaniya	8th	Exp	Inflate-a-Balloon Soda	Washington H, ES				
Wilson, Noah	9th	Exp	Gluten-Free Flours: Which One Is Best?	Northside College Prep				
Perez, Jaylynn	9th	Exp	Candy pH	Carver Military Academy				
Dotson, Nevaeh	9th	Exp	Whitening Toothpaste vs. Regular Toothpaste	Gary Comer College Prep				
Rajaie, Payman	10th	Ехр	The Effectiveness of Agents on Melting Ice	Lane Tech College Prep				
Gamez-Rocha, Yamileth	11th	Ехр	Accuracy of Fingerprints	Carver Military Academy				
Lee, Adrian	11th	Des	ENR for Nitrate Removal & Ammonia Production	Lane Tech College Prep				
Schieleit, Ella	11th	Ехр	Comparing MOF Carbon Dioxide Adsorption	Northside Prep				
		1	Computer Science					
Cheung, Lavina Huang, Stacy	8th	Ехр	Differentiating Between AI Art & Real Art	John C. Haines				
Peters, Zakiy Raiford, Trevon	8th		Fitness and Electrolytes	John D. Shoop Academy				
Cunningham, Avery	8th	Des	Hallowez	Mary Gage Peterson Elementary				
Vargas, Ian	12th	Des	Epifoods	Von Steuben MSC				
Spector, Stella Panchal, Radhini	8th	Ехр	AI vs Human: Are There Noticable Differences?	Skinner North Classical School				
			Earth Science					
Luna, Richard	7th	Ехр	Chicago's Got Drip	McPherson				
Paulsen, Abigail	8th	Ехр	Which Cover Crop is Most Effective?	Palmer Elementary School				
Agrawal, Nikita	12th	Des	Improving Tropical Cyclone Track Forecast	Whitney Young HS				

Last Name, First Name	Grade		Project Title	School Name
	Cidde	Type	Electronics	
Ortega Gaytan, Vanessa	8th	Ехр	Energy Brand	O. A. Thorp Scholastic Academy
Verdin, Bianca	11th	Des	Design of an Exploration Walking Robot	Lane Tech College Prep
Vorani, Blanda		200	Engineering Science	
Guerrero, Virginia	74			
Grover, Sarah	7th	Des	The Walker Buddy	Audubon
O'Leary, Katherine	741-	Dee		Austrikar
Sanford, Beatrice Cote, Lainey	7th	Des	No Spill Slide	Audubon
Robinson, Trevion	7th	Des	How Much Can It Hold?	Gillespie Technology Magnet Cluster School
Buonauro, Anthony		E.v.		
Baumgartner, Chance	7th	Ехр	Ionic Propulsion	O. A. Thorp Scholastic Academy
Crowder, Leah	8th	Des	Multi-Purpose Tray	Earhart
Rhodes, Ava	8th	Des	Bed Buddies	Earhart
King, Jayden	8th	Des	Walking Robots	Gillespie Technology Magnet Cluster School
Patel, Humairah	8th	Des	The AluPen	Mary Gage Peterson Elementary
Mubashiruddin, Sulayman Glenn, Mikayla	9th	Des	Volleyball Dropper	Chicago Agriculture
Vogwill, Jason	11th	Exp	Which Bridge Can You Truss?	Chicago Agriculture
Lenihan, Colin	11th	Ехр	Going the Distance	Chicago Agriculture
Osuji, Divinefavour	11th	Des	Biomimicry in Prosthetic Design	Lane Tech College Prep
	1141	003	Environmental Science	
Hamman, Elijah				
Mullin, Brennan	7th	Ехр	Straws For Earth	Chappell School
Lestage, Colton	7th	Des	Flood Management	Chappell School
Craig, Donovan	_		-	
Koentopp, Maize Alvarez Cordoba, Jimena	7th	Ехр	Compost Nutrient Content	Decatur Classical School
Tellez, Emily	7th	Exp	Food Waste	Maria Saucedo Scholastic Academy
Fitzgerald, Emmett	7th	Exp	Growing native plants in industrial soil.	Robert A. Black Magnet School
Whitford-Rodriguez, Beatriz	7th	Exp	The Environmental Impact of Urban Tree Canopy	Skinner North Classical School
Birkos, Audrey	8th	Exp	Effectiveness of Fire Retardant Paint on Wood	Burley School
Almanza, Alex	8th	Des	Natural Vs Chemical shoe cleaner	Burroughs Elementary
Montes, Daniel				
Reyes, Natalia	8th	Ехр	A Fin-tastic Future	Burroughs Elementary
Saini, Neil Tolleson-Solomon, Clare	8th	Exp	From Soil to Electricity	Decatur Classical School
Vazquez, Sienna	8th	Exp	Permeable Pavement to Reduce Urban Flooding	Decatur Classical School
Sosa, Natalia	8th	Exp	Are You Sure This "Wood" Work?	McPherson
Hannah, Zoe	8th	Ехр	Filtration Materials and Drinking Water	Newberry Math and Science Academy
Mueller, Quinn	8th	Exp	Erosion Prevention	Waters
Acosta, Roberto	8th		Which Fruit Or Vegetable Gives More Energy?	West Park STEAM Academy
Garcia Hernandez, Daniel	our	Exp		West Faik STLAW Academy
Angulo, Yoselin	8th	Exp	Which Color Absorbs the Most Light?	West Park STEAM Academy
Silva, Adriana Horrow, Seth	9th	Ехр	Does Water Location Affect Cleanliness?	Amundsen High School
Cagua, Elliana	9th	Ехр	Nature's Natural Water Filter	Amundsen High School
Tolzmann, Peter	9th	Ехр	Wind direction effects on fall bird migration	Amundsen High School
Ba, Emily	10th	Ехр	Effect of Fossil Fuels on Artemia Viability	Lane Tech College Prep
Marchan, Yairely	10th	Ехр	Effect of Allelopathy on Seed Germination	Lane Tech College Prep
Lukian, Jason	10th	Ехр	Effect of Natural Barriers Against Flooding	Lane Tech College Prep
Coomer, Riley	10th	Ехр	Effect of Seasons on Urban Algae Productivity	Lane Tech College Prep
Wu, Leah	10th	-	Powering Tomorrow: IL Nuclear Production	Payton College Prep
Lyons, Catherine	11th	Exp	What Type of Water Filter is Most Effective?	Chicago Agriculture
Czempinski, Alexander	11th	Ехр	EffectofBurnScarsonMacroinvertebrateDiversity	Lane Tech College Prep
Haynes, Akosua	11th		Is The Grass Greener on the Recycled Side?	Payton College Prep
i layiles, Arusua	1101	Ľλμ	IS THE GRASS GREENER OF THE RECYCLED SIDE?	n ayton College Flep

2024 CPS Science Exhibition Participants					
Last Name, First Name	Grade	Туре	Project Title	School Name	
		-	Health Science		
Salim, Ramsha	7th		Age VS. Ear Size Effect on Hearing	Budlong	
Cartagena, Kerem	7th	· ·	How different drinks affect teeth	Burley School	
Feulner, Dylan	7th	Ехр	How do movie scores affect heart rate?	Byrne	
Morgan, Gianna Castaneda, Amiyah	8th	Exp	Diet VS Normal Soda on Your Teeth	Burroughs Elementary	
Perez, Layla	8th	Exp	Sunny Colors	Chicago World Language Academy	
Manella, Ava					
Reyes, Samantha	8th	Ехр	What sports drink has the most electrolytes?	Ebinger School	
Correa, Isaiah Torres, Jose	8th	Exp	Video games and blood pressure	Grissom	
Viniak, Saatvik	8th	Des	A Novel Computational Based Inhibitor for CRC	Lane Tech Academic Center	
Henderson, Ginger	8th	Exp	Will It Stick?	Lenart	
Morris, Jazmin	8th	Exp	The Irony is Killing Me	McPherson	
Nathan, Allen	8th		Thrombolytic Theory		
Blankenberger, Isabella	8th		Target Cell Types: Transcription Factors	Taft	
Rieger, Lucille	8th		Which sports drink has the most electrolytes?	Waters	
Roman, Genesis	9th		Kimchi pH Levels	Carver Military Academy	
Joshi, Anaya	10th		Beyond the Surface	Payton College Prep	
Burgess, Matilda	11th	Exp	Cancer Cells Treated with Chemo & Blood Cells	Amundsen High School	
Ibe, Rita	11th		Are Fingerprint Inherited?	Carver Military Academy	
Marquez, Andrea	11th		Blood Spatter Analysis	Carver Military Academy	
•		-			
Ream, Landra	11th	Exp	Gene Expression and Cisplatin Treated Cancer Materials Science	Lane Tech College Prep	
Lee, Emmett	7th	Evn	The Fastest Way to Solve a Rubik's Cube!	Beaubien Elementary	
Stirling, Elsie	7th		Which Roof Material Repels Water Best?	Hannah G. Solomon	
Mellett, Maxwell	7th		Pumping up the output in Desalination	O. A. Thorp Scholastic Academy	
Abuhashish, Malik		-			
Aly, Sulaiman	7th		Effect of Concentration & Type of Salt on Ice	Palmer Elementary School	
Williams, Karysn	7th	· ·	Which Filtration	Vanderpoel	
Sanchez, Jaedyn	8th	Exp	The Future of Food Packaging: Bioplastics!	Beaubien Elementary	
Chlebowicz, Elena	8th	Exp	What is the most absorbent diaper brand?	Ebinger School	
Wozniak, Dominik Chamochumbi, Joseph	8th	Ехр	Spray and Pray	O. A. Thorp Scholastic Academy	
Tenorio-McBride, Cassandra	8th	Exp	Does Coloring Affect the Rate of Burn?	Palmer Elementary School	
Rogozinski, Benjamin	10th	Exp	Pick Your Plastic	Chicago Agriculture	
Sperling, Hannah	10th	Exp	The Effect of Hemp on Concrete Integrity	Lane Tech College Prep	
			Mathematics		
Gonzalez, Adrian	7th	Math	Madness-Methods: Fractals in the Stock Market	Decatur Classical School	
Chen, Patrick Zhang, Jerry	7th	Math		QED	
Ugaz, Isabel	7th	Math		QED	
Kunkle, Jackson Popova, Lydia	8th	Math		QED	
Shariff, Iliyan	011				
Kimmel, Ashok	8th	Math		QED	
Yu, Sophie Rajan, Akshara	8th	Math		QED	
Jones, Darius	8th	Math	Structure in primes	Young AC	
Jones, Bogdan	10th		Frobenius discriminants	Payton College Prep	
Guo, JunHi	11th	Math		QED	
Kong, Annya	11th	Math		QED	
Wang, Kallie	11th	Math		QED	
Barnickol, Karl	12th	Math		QED	
Hu-Lowenthal, Aiden	12th	Math		QED	
na Lowential, Aluen	12(1)	maul	<u> </u>		

		Project Title	
		Microbiology	
7th	Exp		Gillespie Technology Magnet Cluster School
	-		Audubon
	-		Burroughs Elementary
_	-		Ruggles S.T.E.A.M. School
	-		Von Steuben MSC
			Whitney Young HS
			Amundsen High School
-		ç	Lane Tech College Prep
			Lane Tech College Prep
			Gary Comer College Prep
	-		
12th	Exp		Payton College Prep
		Filysics	1
7th	Exp	2 Fast Not Furious	Budlong
7th	Exp	Citrusity - Can Citrus Create Electricity?	Burley School
7th	Exp	Take it The Science Behind Banked Shots	Burley School
7th	Exp	Volt Current	Byrne
7th	Exp	Cooling With Sound	Chicago World Language Academy
7th	-	· · · · ·	Franklin Fine Arts Center
7 un	⊏хр		
7th	Ехр	How Fast Can We Go?	Franklin Fine Arts Center
7th	Ехр	Paper Airplane Thickness	John C. Haines
7th	Exp	Maximizing Solar Efficiency	Keller Regional Gifted Center
7th			Keller Regional Gifted Center
7th			Taft
			William E. Dever Elementary School
8th	Exp	Coil Loops	Burroughs Elementary
	-		Byrne
8th		•	Chicago World Language Academy
8th	Des	UN SISTEMA DE ALARMA PORTATIL .	Courtenay Language Arts
8th	Exp	Angle of Impact on Bloodstain Patterns	Decatur Classical School
8th	Exp	The Sifter	Haugan Elementary
8th	Exp	Gear Teeth	Newberry Math and Science Academy
8th	Exp	Light on Solar Panels	Newberry Math and Science Academy
8th		-	Parkside STEAM Community Academy
8th			Waters
		0 .	Amundsen High School
	•		Chicago Agriculture
	-		Chicago Agriculture
	-		Chicago Agriculture
1	-^2	Zoology	
7th	Exp		Hannah G. Solomon
9th	Exp	How Does Temperature Affect a Bearded Dragon?	Carver Military Academy
	7th       8th       8th       8th       8th       8th       8th       8th       8th       8th	8th     Exp       8th     Exp       8th     Exp       9th     Des       9th     Exp       10th     Exp       10th     Exp       10th     Exp       10th     Exp       10th     Exp       12th     Exp       7th     Exp       8th     Exp       8th<	8th   Exp   Silver Slaughter     8th   Exp   What Hand sanitizer kills the most Bacteria?     8th   Exp   Agar Cell Diffusion     9th   Des   The Bio Glow Stick     9th   Exp   The Bacteria Living Among Us     10th   Exp   The Effectiveness of UV-C Light     10th   Exp   Effect of Synergistic Remedies on M. luteus     11th   Exp   Effect of BPA on H. exemplaris CAHS Proteins     12th   Exp   Are Fingerprint Patterns Inherited?     12th   Exp   Overexpression of JAK3 and CD69 in Coronar     Physics     7th   Exp   Citrusity - Can Citrus Create Electricity?     7th   Exp   Overexpression of JAK3 and CD69 in Coronar     7th   Exp   Take it The Science Behind Banked Shots     7th   Exp   Oolt Current     7th   Exp   Volt Current     7th   Exp   Policking Up Fingerprints     7th   Exp   How Fast Can We Go?     7th   Exp   Maximizing Solar Efficiency     7th   Exp   Nator cold, will magnets uphold?





## Sixth-Grade Regional Winners

Student name	Title	School	Network
Ma, Leo	Which Type of Airplane Category Flies Best?	Skinner North Classical	4
Hei, Geer	Which Type of Airplane Category Flies Best?	Skinner North Classical	4
Cavazos, Aaron	Does pH Affect Germination?	Byrne	10
Oskvarek, Jack	Does pH Affect Germination?	Byrne	10
Bernotas, Adella	The Best Homework Environment	Franklin Fine Arts	4
Cinquegrani, Allegra	The Best Homework Environment	Franklin Fine Arts	4
Robinson, Suirad	What Can You Hear?	Lenart	ISP
Rivera, Mia	Which Water Has the Best pH Level?	West Park STEAM Academy	5
Varela, Jaylah	Which Water Has the Best pH Level?	West Park STEAM Academy	5
Borgula, Eliza	LED Botany	Beaubien Elementary	1
Jakuszewski, Kinga	LED Botany	Beaubien Elementary	1
Vashisht, Raaga	Effect of Water pH Value on Plant Growth	Decatur Classical	2
Galla, Rachana	Sprinkle & Sweets	Beaubien Elementary	1
Pramod, Niveditha	Sprinkle & Sweets	Beaubien Elementary	1
Meegoda, Emma	Soapy Suds	Beaubien Elementary	1
Spanos, Panagiotis	Test-A-Water	Beaubien Elementary	1
Mateo. Martinez	Don't' Drop the Pop!	Franklin Fine Arts	4
Blake, Jenesis	Don't Drop the Pop!	Franklin Fine Arts	4
Cruz, Valeria	Growing Crystals	Grissom	13
Fernandez, Estrella	Growing Crystals	Grissom	13
Mei, Katie	Buoyancy Within Eggs	John C. Haines	6
Boatright, Peyton	Gummy Bear Experiment	Lenart	ISP
McGuire, Kalley	How Much Salt to Make an Egg Float	Lenart	ISP
Primar, Destiny	It's Water (with a Dash of Salt)	Parkside STEAM Com Acad	12
Gamble, Maverick	Tap vs Bottle Water	Robert A. Black Magnet	12
Haynes, Michael	Slime Viscosity	Robert A. Black Magnet	12
Wolifou, Enoch	UnalogOS- D	Courtenay Language Arts	2
Kehinde. Oluwamayokun	UnalogOS- D	Courtenay Language Arts	2
Westbrook, Jayden	Potato-Cents Power -D	Gillespie Tech Magnet	12
Lassus, Xavier	Mobile Solar 101-D	Mary Gage Peterson	1
Rholl, Bjorn	Mobile Solar 101-D	Mary Gage Peterson	1
Peterson, Henry	The Trash Hull-D	Beaubien Elementary	1
Marie, Brandon	The Trash Hull-D	Beaubien Elementary	1
Gracias Sanchez,			2
Santiago	Gereador de energia/Energy Generator-D	Courtney Language Arts	
Kim, Johaan	Robo Nurse Saves the Day	Decatur Classical School	2
London, Aaron	Robo Nurse Saves the Day	Decatur Classical School	2
Hall, Zohra	How Buildings Move in Simulated Weather	Newberry Math & Science	4
Valdlamani, Sriya	Effect of Filters on Water's pH	Decatur Classical School	2
Nurmukhamedova, Saliha	Effect of Filters on Water's pH	Decatur Classical School	2

Escobar, Alex Noushad, Amelia Kong, Alexa Nott, Zoe Zamora, Daniella Cruz, Alexa Muhisani, Sanaa Flores, Maya Conway, Mila Haynes, Peyton Prince, Zion

Which Purification System Cleans Better?	Newberry Math & Science	2
Air Quality Test	Skinner North Classical	4
Air Quality Test	Skinner North Classical	4
Effect of Laundry Detergent on Dirty Cloth	Decatur Classical School	2
Popp'in Popcorn	Grissom	13
Popp'in Popcorn	Grissom	13
Temperature and Bounce Height	Franklin Fine Arts	4
Interleaved vs Not Interleaved	Grissom	13
Surface Tension	Lenart	ISP
Which Fabric is the Best Insulator?	Lenart	ISP
Heat vs Color	Parkside STEAM Com Acad	12

## 2023 6<sup>th</sup> Grade City Awards







Awards Ceremony	
Saturday, March 16, 2024	
1:00 P.M Illinois Tech- Hermann Hall Auditorum	
Pledge of Allegiance	
National Anthem	
Greetings	Carrie Kaestner Chairperson of CPS Science Fair, Inc
Welcome	Elizabeth Copper Executive Director CPS Science Fair, Inc
Remarks	Paul Valaitis/Baxter President of CPS Science Fairl, Inc
	TBA ALUMNI SPEAKER
Awards Presentation	Ruby Parnell-Booth Chairperson of Special Awards CPSSSF, Inc
Winners Recognized	Paul Valaitis/ Baxter Board Member, CPS Science Fair, Inc
Symposium Winners	Lucy Young Chairperson of Symposium & Essays
Illinois Junior of Academy of Science (IJAS)	Monique Murray Chairpersons, IJAS State
Regeneron International Science & Engineering Fair(ISEF)	Carrie Kaestner Chairperson
Closing Remarks	Elizabeth Copper Executive Director CPSSSF, Inc







**Piper Evans** University of Michagan Ann Arbor Biology or Applied Health Sciences

### 2022-2023 Scholarship Recipients



**Riya Joshi** Princeton University Molecular Biology



**Lydia Schieleit** University of III Urbana-Champaign Data Analytics



**Ritvik Viniak** Northwestern Univeristy Molecular & Cellular Biology



Kathryn Warren Univsersity of Missouri Biology



**Prioyanshi Paytel** Purdue University Mechanical Engineering



Wylan Harris Loyola University Neuroscience



Patrick Colon University of Illinois Urbana-Champaign Engineering



Maya Joshi Princeton Univeristy Ecology & Evolutionary Biology



Lisa Patel University of Illinois Urbana-Champaign Biology



Zayd Majzoub University of Illinois Urbana-Champaign Biology





#### Peoples Gas Middle School STEM Clubs

The following elementary schools have approved STEM clubs sponsored by Peoples Gas. Each club was provided with a stipend for the club sponsor. Giving students the time and support to experience research and investigations of their ideas is important. Engineers will be more available for the 2023-2024 school year to mentor students. The primary objectives of the Peoples Gas Middle School STEM Clubs were to provide guidance to students interested in developing STEM Exhibition projects.

An information meeting is held in the Fall (September/October) to provide teachers with the opportunity to particpate in this program.

## All students are "STEM Capable"

Students graduate with 21st century skills that enhance success in college, career, and civic life.

Alex Haley Reginald Johnson Byrne Elementary Elaine Sanches Gillespie Tech Magnet Ciuster Robin Morgan-Sponsor

**Grissom** Melissa Ramierez Parkside STEAM Academy Janice Coleman-Mathus Ruggles S.T.E.A.M Elementary Adayo Moton

#### ALL HAVE MIDDLE SCHOOL STUDENTS PARTICIPATING IN THE

74<sup>TH</sup> 2024 EXHIBITION OF STUDENT STEM RESEARCH Illinois Tech, March 13- 16, 2024 Awards Presentations, March 16, 2024

# **CONGRATULATIONS!!!!**





## THANK YOU!!!!!!!!!!

STUDENTS, TEACHERS, JUDGES, PARENTS, CPSSSF, INC. AND Department of STEM FOR ALL OF YOUR SUPPORT

