

Research

Experiment

Results

Conclusions

Report

Documentation

Abstract

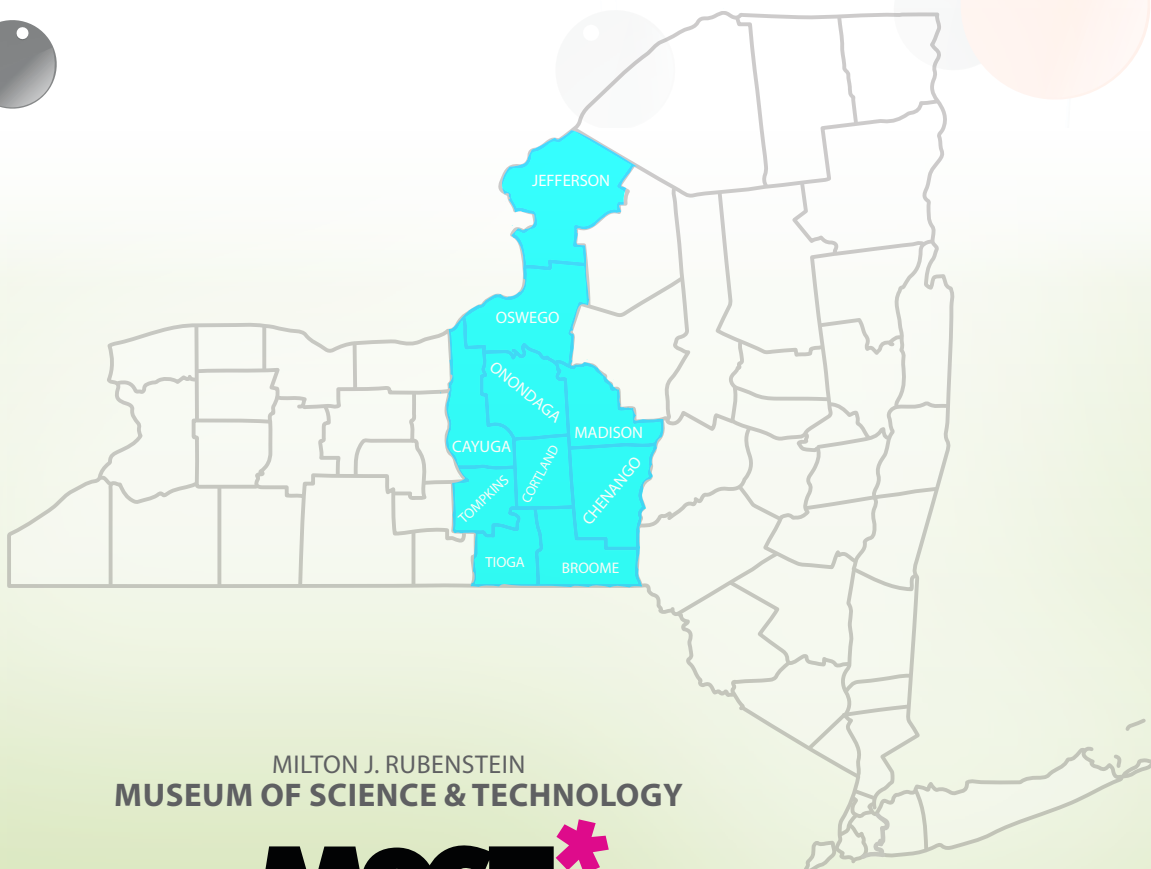
Exhibit
Display

Presentation

43RD
ANNUAL

CENTRAL
NEW YORK

**SCIENCE &
ENGINEERING
FAIR**



MILTON J. RUBENSTEIN
MUSEUM OF SCIENCE & TECHNOLOGY

MOST*

MAJOR FUNDING PROVIDED BY



LOCKHEED MARTIN

ADDITIONAL SUPPORT PROVIDED BY



SOLVAY BANK



LONG LAW

Dr. Donna DeSiato



Mr. Rick Shubert



2023 CNYSEF

SATURDAY, APRIL 1, 2023



EVENT SCHEDULE

8:00 AM - 8:45 AM

Student/Project Check-in

9:00 AM - 11:30 AM

Judging Period (all categories)

11:30 AM - 1:30 PM

Student Break / Award Tabulation

12:00 PM - 1:00 PM

Public Display Period

1:30 PM

Awards Ceremony

2:30 PM

Project Breakdown

SRC, Inc. is a proud sponsor of the Central New York Science & Engineering Fair (CNYSEF). As a North Syracuse based engineering company, we recognize the importance of community outreach efforts that build our workforce pipeline and benefit students by encouraging them to pursue their interests in science, technology, engineering, and mathematics (STEM). We do this by bringing them together with professionals in STEM and providing opportunities to network while participating in hands-on activities and learning what it means to work in the STEM field.

The CNYSEF is a fantastic event, affording students in Central New York the opportunity to practice those STEM principles.

Every day, we rely on STEM professionals to develop innovative and life-saving solutions. Because of that, we understand the importance of investing time and resources in to educating today's students. We have built a robust STEM community outreach plan that includes inviting educators and students to our facility, aiding in our mission to foster an interest in STEM from an early age. We provide students and educators the exposure to STEM professionals, information on effective pathways to consider for future education, and we help them understand the importance of soft skills like the Four C's of STEM (communication, collaboration, critical thinking and creativity).

By continuing to strengthen the pipeline for our highly qualified workforce, SRC can execute our mission of helping to keep America and its allies safe and strong by protecting its people, environment, and way of life.

Congratulations! We are impressed by the talent shown at this event and your participation in the CNYSEF puts you in an elite group of scientific researchers. By beginning your journey now, there is no limit to what you may accomplish down the road. Please – keep up the good work!

On behalf of the SRC enterprise, I want to thank you all for your participation and to the MOST for providing opportunities like this, year after year, to students. We would also like to recognize the teachers and parents for providing their students with the support needed to succeed. We look forward to seeing many of you apply for positions at SRC in the future. Good luck!

Sincerely,



Joe Lauko
SRC, Inc.
Chief Operating Officer



Advancing science, technology, engineering, and mathematics (STEM) education is a critical focus for Lockheed Martin. We know firsthand the importance of educating our young people in these areas. As the future of our country and our world depends on how well we train the next generation for hi-tech industries, we must continue to encourage its best and brightest to find satisfaction and pursue careers in advanced technology fields. Success depends on what we do now to inspire, foster and grow the engineers and other STEM-related professionals of tomorrow.

We understand and embrace the importance of those words and we commit ourselves as a company to those ideas every day through supporting education programs, events and campaigns focusing on student achievement, teacher development and gender and ethnic diversity. That is why Lockheed Martin has been proud to partner with the Museum of Science & Technology as a sponsor of the Central New York Science & Engineering Fair for nearly twenty-five years.

Success in creating interest and engaging students in STEM depends on collaboration among industry, educators, policy makers and families. It is the invaluable time and attention to detail of the volunteers, teachers, parents and sponsors of the Museum of Science & Technology that continue to elevate and drive the CNYSEF learning experience. It is my firm belief that the enthusiasm resulting from the CNYSEF will provide long-term rewards to all its participants.

On behalf of all the employees at Lockheed Martin and the Museum of Science & Technology, thank you for your participation, hard work and dedication to not only making this event a success but for investing in the future of our students.

Sincerely,

A handwritten signature in blue ink, appearing to read "MJL 2", written over a faint, light blue circular watermark.

Michael J. Leone, Ph.D.
Vice President & Chief Engineer of Integrated Warfare Systems & Sensors
Lockheed Martin



To all participating students:

Welcome to the 43rd Annual **Central New York Science & Engineering Fair!**

It is with great pleasure and pride that the Milton J. Rubenstein Museum of Science & Technology (MOST) hosts the 2023 **Central New York Science & Engineering Fair (CNYSEF)** for 4th – 12th grade students in our 10-county region.

You have thought creatively and worked hard to discover, document, and advance society's understanding of the natural world. What you have accomplished is meritorious, and your efforts will support your future education and career pursuits.

Please join us in thanking our many sponsors. Their generous support enables the MOST to offer **CNYSEF** at no cost to all students. The MOST provides STEM education opportunities to all with assistance from CNY corporations, foundations, organizations, and college and university partnerships; our outreach programs are second-to-none in the United States, and our sponsors believe, as we do, that every young student can succeed with opportunities such as this.

We look forward to hearing about your discoveries, your inventions, and all your future successes in whatever path you choose.

Congratulations!

Lauren Kochian
PRESIDENT

Emily Stewart, Ph.D.
SENIOR DIRECTOR OF
EDUCATION & CURATION

AFRICAN ROAD ELEMENTARY

GRADE 5

Darsh Kukkar

Solution to Global Water Shortage: Desalinators and antimicrobial Multi walled Carbon Nanotube water filter(mCNT)

BINGHAMTON HIGH SCHOOL

GRADE 10

Ethan Beauzile

Application of Deep Learning Models into the Prediction of Interleukin-6 and -8 Cytokines in Sickle Cell Anemia Patients

CATO-MERIDIAN ELEMENTARY SCHOOL

GRADE 4 & 5

Kinsey Gochanour, Gwyneth Peckham

Butter Bonanza

GRADE 4

Luke Kyle

Earthquake Simulator

GRADE 5

Collin Simons

What Size Graphite Makes The Brightest Light Bulb?

CAZENOVIA MIDDLE SCHOOL

GRADE 5 & 6

Jack Bradstreet, Dougie Bradstreet, Eddie Hollman

Empowered

CHARTER SCHOOL OF WILMINGTON

GRADE 10

Eesha Sagiraju

The End of Chemo & the Future of Cancer Treatment? Using DNA Origami to Design a Nanocarrier for the Targeted Delivery of Monoclonal Antibodies

CHENANGO FORKS

GRADE 7

Calliope Brennan

The "Tooth" About About Sparkling Water: The Effects of Flavored Sparkling Water on Teeth

GRADE 8

Jillian Howell

Best insulation for stray cat house

CHESTNUT HILL ELEMENTARY

GRADE 4

Naseem Bahi

Cloud In A Jar

EAC MONTESSORI SCHOOL OF ITHACA

GRADE 4

Sophia Kong

Endangered Tiger Species

EAGLE HILL MIDDLE SCHOOL

GRADE 5

Achintya Ramaswamy

Lava lamp

Neev Kirane, Santhosh Krishna Manikandan

The Car of tomorrow

GRADE 8

Yusuf Ay

Slap-A-Phone

Laila Duggal

What are mathematical fractals and can they be used with machine learning in cancer detection

PARTICIPANTS

EAST SYRACUSE ELEMENTARY SCHOOL

GRADE 4

Josh Margeson
Hydrophobic Sand

Jude Gallery
Insulation Information

GRADE 5

Sophia Jones, Abigail Van Deuson
Candy Dispenser

Jude Gallery
Lacrosse Ball Bonanza

John Forbes
Does Mint Affect Water Temperature?

ELIZABETH ANN CLUNE MONTESSORI SCHOOL OF ITHACA

GRADE 7 & 8

Eafan Chen, Robert Kong
SmartCuber (TKWGTWDOASF)

EMMA WILLARD SCHOOL

GRADE 11

Weiqian Yan
The Correlation between Object Numeracy and Raw Estimations

EXPEDITIONARY LEARNING MIDDLE SCHOOL (ELMS)

GRADE 6

Eleanor Vitale
Measuring the Efficacy of Various Textiles for Blocking Ultraviolet Light

FAYETTEVILLE ELEMENTARY SCHOOL

GRADE 4

Akshat Saxena
Lava lamp

FAYETTEVILLE-MANLIUS HIGH SCHOOL

GRADE 10

Yashu Ren
Fingerprints on different materials

GRADE 11

Agniva Chaudhuri
Low-Cost Augmented-Reality Heads Up Display

Jared Duggal

A Tale of Two Cities: Utilizing large sociological data sets and the development of a novel matching algorithm to understand the relationship between poverty, social determinants, and health outcomes in small to mid-sized cities in the United States

Alexis Forbes, Sankalp Gautam
Fighting the Unknown: Using Molecularly Imprinted Polymers to Combat Emerging Global Pathogens

HOMER JUNIOR HIGH SCHOOL

GRADE 7

Nolan Hayes
Punchier Punchlines - How to Make a Joke Funnier (or not)
Gwen Page
Affordable Backyard Biodiversity

GRADE 8

Toby Carr
Soaring to New Heights with Sustainable Power

GRADE 11

Caoimhe Dudgeon
Optimizing Small Satellite Orbits

IHSAN SCHOOL OF EXCELLENCE

GRADE 4

Jamila Farah
What Causes Tooth Decay?

GRADE 6 & 7

PARTICIPANTS

Adalena DeFazio, Haniya Siddique
How Many Lemons Does it Take to Light a Lightbulb?

GRADE 7

Jenna Fakhr
What is the Most Effective Way to Disinfect a Kitchen?

Yusra Khader
Simplified Electric Motor

IMMACULATE CONCEPTION FAYETTEVILLE

GRADE 6

William Schafran
Elephant Toothpaste

JAMESVILLE-DEWITT HIGH SCHOOL

GRADE 11

Yavuz Damkaci
Algorithm for Optimal Sorting of High School Credits into Graduation Requirements

KINGSFORD PARK SCHOOL

GRADE 5

Leonard Sabirianov
Interesting Facts and Challenges of the Different Types of Rubik's Cubes

LIVERPOOL ELEMENTARY

GRADE 4

Parker Roff
How is Boba Made?

MANLIUS PEBBLE HILL SCHOOL

GRADE 6

Isaac Duchene
A Day in the Life of Mold

Jayden Lin
Pump Pump

Gibson Foster
Road Racing

Emma Mollapour
Taking My Breath Away

Noor Chhablani
The Mighty Lemons and Limes

GRADE 7

Zinira Izmir
Are You Better At Guessing the Age of Someone Than a 7th Grader?

Aidyn McLean
Bathroom Bacteria

Tae Reid
Candy Coated Lies

Sebastian Sanzone
Chaos, Corruption, and Civil War

Mira DeVincentis
Color Coded

Josh Wilson
Does the FBI Do Things Right?

Abby Alexander
Flowers & Temperature

Sona Trikha
Flute vs Football

Nicky Comprix
Sponges and Liquids

Anya Reckess
Strange Light vs Basic Wipes

Peter Rubenstein
The Effects of Room Temperature on Heart Rate

Harry Nelson
The Insulation of Popsicles

Francis Tolman

What Makes Cars Go Faster and Farther?

Elle Rubenstein

Your Own Worst Critic

GRADE 8

Ariella Shever

Sandbag: Dead or Alive?

Langley Foster

The Road to Acidic Water

GRADE 9

Caroline Bernazzani

Candy Confusion

Daniel Ford

The Picture-Perfect Photo(synthesis)

GRADE 10

Alexa Rose Battaglia

Toxic effects of antimicrobial silver nanoparticles on aquatic life

Genevieve McGuire Griffin

Using Glycine Max RNA to suppress Transcription Factors between protoxylem and metaxylem to aid in abiotic stress resistance

GRADE 12

Rhys Denno

Investigating the Function of 4Q7Q, a Protein Structure of Unknown Function

MORGAN ROAD ELEMENTARY

GRADE 5

Connor Mitchell

Do we all think alike?

MOTT ROAD ELEMENTARY SCHOOL

GRADE 4

Arhan Chaudhuri

Lava lamp

OSWEGO HIGH SCHOOL

GRADE 11

Ian MacKenzie

Investigating the Function of 4Q7Q, a Protein Structure of Unknown Function

OXFORD ACADEMY HIGH SCHOOL

GRADE 11 & 12

Jocelyn Finch, Katie Yates, Madalyn Barrows

What is in your drinking water?

PAUL V MOORE HIGH SCHOOL

GRADE 11

Ngan Phan

Dye Hard

Travis Lipes

You Stink! The Story of Halyomorpha Halys...

SETON CATHOLIC CENTRAL

GRADE 7

Kelsey Quinn

Geodesic domes vs. Weight

Xitlali Urrea

How do your local rocks compare to volcanic rocks

GRADE 8

Alexander Rogers, Aaron Zielewicz

What Kind of Tape Is the Most Waterproof?

SMITH SCHOOL, CORTLAND CITY SCHOOLS

GRADE 4

David Ford

Let's Hand it to Nature: Adaptation for Better Swimming

PARTICIPANTS

SOULE ROAD ELEMENTARY

GRADE 5

Khloe Knapp

Bouncy Balls

ST. DEMETRIOS PREPARATORY SCHOOL

GRADE 11

Victor Sabirianov

Investigating the Function of 4Q7Q, a Protein Structure of Unknown Function

SYRACUSE ACADEMY OF SCIENCE CHARTER SCHOOL

GRADE 4

A'myllia Everson

All about Apples

McKenzie Miller

Candy Snap

Liam Huggins

Exercise Heart Rate

Fal'lynn Adams

Gummy Science

Maddox McDay

Identifying Liquids

Merih Hailu

What can make ice melt faster?

Destinee Brown, Jahker Wagner Jr.

Wind Meter Science

GRADE 6

Abdulmajid Abdirahman, Aguto Jok

Does black absorb more light?

Caidon Deshong, Ro Bin Thang

Does color effect memory?

Allen Baskota, Region Luitel

Does music effect learning skills?

Malencie Clemente

Preston Freeman

Terrella Jones

Liam Lewis

Juliana Santa

GRADE 7

Amer Albadeh, Erick Jah Jr, Emani Murphy

Does music have an effect on plant growth?

Ghadeer Alomeri

Aduot Chol

Gianna Ciciarelli

Jayda James

Devin Johnson

Zi'Asia Short

GRADE 8

Jayden Mackool

How do Sugary Drinks Affect YOUR Teeth?

Harmony West, Qua-tice Williams

Moody Music

Irene Garcia, Christina Say

Nails or Fails -- Which Nail Polish Formula Produces the Best Results?

Ellery Beck, Micari Jackson, Adrianna Losurdo

Paraffin vs. Beeswax -- Which Melts Quickest?

Sophia Kyaw, Lydia Masinde

Which Ice Cream Will Melt the Fastest?

Araceli Goodyear

Why and how does the Influenza Vaccine Change Every Year?

Hytham Alamary

Why Does Different Types of Mold Grow on Bread?

GRADE 9

Kamiera Carson

Bacteria and Germs in Hand Dryers

Mickayla Pagan, Mia Parks

Influenza vs. Respiratory Syncytial Virus

Malaiika Mouity, Jefmarie Muniz, Heidy Rodriguez-Gomez

Water Fountains and Germs

GRADE 10

Chase Carney, Lenny Virgillio

MASKING in the glory

Thon Chol, Alexander Mathis

Recycled Filter for Co2

Emily Parks, Ne'reah Rivers

The Effects of Heavy Metal on Algae

Nasir Parks

Compost & Composition

Serenity James

Earthworms in Different Colonies

Kerra Carmichael, Ale'la Gillard

Effects of Noise Pollution on Plant Growth

Toni Mwaniki, Dzemila Tihic

Microplastic Decomposition in Onondaga Lake

Zee Harper

Photosynthesis Shortcuts

Arden Goodyear

Regional perspective of artificial intelligence FT. Aibo

Alex Cirino

Smog in a Jar

Amanuel Hailu, Andrew Losurdo

The affect of temperature on earth worms and the soil they enrich

Caleb James, Malachi McGraw, Amir Ramos

The Utilization of Invasive Plant Species

ArRazaha Bell, Harmony Saffold

Wildfires: The Impact of Global Warming to Grass

GRADE 11

Yakina Sika-Amoah

A Novel Study to Solve Antimicrobial-Resistant (AMR) Fungi Threat: A herbal remedy involving Hibiscus Sabdariffa fungicidal invasion on the molecular composition of Fusarium Oxysporum Fungi

Grace O'Neill, Migual Mathis

Creating a Synthetic Violacein Fabric Dye Out of Transformed E. Coli.

Tarik Muhovic, Emad Alomeri

Edible Water Bottles

Makayla McMullen, Jenell Virgilio

The Future of Clean Water: Moringa Oleifera Coated Filters

Andre McClain

Using dark dyes to create solar cells

THE MASTERS SCHOOL

GRADE 11

Eugene Hwang

Augmented Alignment: A Novel Cross-Lingual Zero-Shot Framework for Extremely Low-Resourced Endangered Languages

VESTAL HIGH SCHOOL

GRADE 9

Manya Kukkar

Multi year research - Process of developing Mcc J25 as universal Anti- microbial drug (Year 3).

GRADE 10

Keith Dai

Analysis of the effectiveness of various COVID vaccines

PARTICIPANTS

VESTAL MIDDLE SCHOOL

GRADE 8

Derek Dai

Cracking a Caesar Cipher

VIRTUAL

GRADE 11

Lukas Abraham, Dylan Nguyen

Application of Deep Learning Models into the Prediction of Interleukin-6 and -8 Cytokines in Sickle Cell Anemia Patients

WELLWOOD MIDDLE SCHOOL

GRADE 5

Ishaan Deshmane

The Car of tomorrow

WEST GENESEE MIDDLE SCHOOL

GRADE 5

Maddison Perkins, Penny Schultz

Belle vs Bunny

Emma Caltabiano, Sarah Sullivan

Strawberry DNA

REGISTERED AS OF 3/30/23

2023 Central New York Science & Engineering Fair AWARDS

CERTIFICATES & HONORS

The success of a science fair project is judged by a number of standards but should NOT be measured by the awards a participant receives. The goal of the **Central New York Science & Engineering Fair (CNYSEF)** is to create an opportunity that encourages young people to ask questions and investigate the answers, cultivating a richer understanding of their world. However, the CNYSEF is also a competition and awards prizes for scientific achievement.

MOST Membership: Each participant will receive a **One Year Two-Person Membership** to the Milton J. Rubenstein Museum of Science & Technology located in historic Armory Square, Syracuse, New York.

CNYSEF Award Medallions will be received by 60% of the participants. Three levels of CNYSEF awards are given based on the following criteria and at the discretion of the judges:

Honors: The participant shows an above average understanding of a scientific/engineering principle.

High Honors: The participant shows an above-average effort in understanding a scientific/engineering principle. The oral presentation, exhibit, and written report show well-above-average effort, attention to detail, and level of interest.

Highest Honors: The participant shows a clear, in-depth understanding of a scientific/engineering principle. The oral presentation, exhibit, and written report show superior effort, attention to detail, and level of interest.

REGIONAL AWARDS

Regional awards are provided by Central New York organizations, colleges, and corporations.

Kathie Almonte Memorial Design Award

Named in honor of our dear friend and talented long-time MOST Art Director Kathie Almonte, this award recognizes one Junior-level and one Senior-level project whose presentation board demonstrates a high level of attention to detail and graphic design skill.

Award: \$100 Cash Award for Junior-Level Winner and \$100 for Senior-Level Winner (\$200 total)

ASCE Syracuse Section Awards in Civil Engineering

These awards recognize achievement in a topic related to civil engineering.

Award: Certificate and \$200 Cash Award

Central New York Section of the American Chemical Society–Awards in Chemistry

Recognizes excellence in the understanding or implementation of chemistry principles.

Award: \$100 Cash Award (Junior) & \$150 Cash Award (Senior)

IEEE Awards in Electrical and Computer Engineering

These awards are given to students showing mastery of projects in the area of electricity & magnetism, electronics, computer science or optics.

Award: \$50 Cash Award

Le Moyne Excellence in Biology– Professor David L. Smith Memorial Award

The Le Moyne Excellence in Biology award will recognize a senior project demonstrating excellence in the field of biology.

Award: Certificate and book award

Le Moyne Excellence in Mathematics or Computer Science

The Le Moyne Excellence in Mathematics or Computer Science award will recognize both Junior and Senior projects demonstrating excellence in these fields.

Award: College Prize Pack

Lockheed Martin Awards

These awards recognize excellence in engineering and technology.

Award: Up to ten gift bags are awarded to both Junior and Senior projects

Peter Plumley Engaged Participation Award

Named in recognition of the devoted service and long-time program direction of Dr. Peter Plumley, this award recognizes the school and teachers whose students submitted the highest number of high-quality science fair projects in any division.

Award: \$250 cash award to the school's STEM/Science Department and a free MOST Field Trip for up to 100 students

SUNY College of Environmental Science and Forestry Best Environmental Science Project

This award recognizes achievement in environmental science projects.

Award: Two \$50 Gift Certificates

SUNY Cortland Chemistry Award

This award recognizes excellence in chemistry research and is open to all participants.

Award: Theo Gray's Mad Science: Experiments You Can Do At Home–But Probably Shouldn't [Hardcover]

Signe Golash Mathematics Award

The Signe Golash Award in Mathematics will recognize a project demonstrating excellence in mathematics.

Award: One \$250 Award Check

Syracuse University Department of Earth & Environmental Sciences Award

This award recognizes achievement in earth & environmental science projects.

Award: One \$200 Check

Terra Science and Education Award

This award will be given to 10 outstanding STEM projects. This award will be given to five projects from the Junior level and five from the Senior level.

Award: Twenty \$25 Gift Cards (\$500 total); Note: Individual winners receive 2 gift cards (\$50); team winners receive 1 gift card each (\$25) for a total of \$50/team

ISEF AWARDS

These awards are provided by ISEF.

American Psychological Association (APA)

This award recognizes outstanding research in psychology (junior or senior division) under the category of behavioral, social sciences, or any category related to psychology.

Award: Certificate and 1-year membership in the APA

Association for Women Geoscientists

This award is offered to female students. These projects should exemplify high standards of innovativeness and scientific excellence in the geosciences. Special consideration will be given to projects that increase the public awareness of geosciences, illustrate the interdisciplinary nature of the geosciences, or promote the sensitivity to Earth as a global system. This may be given to the junior or senior division, team, or individual.

Award: Certificate

The Lemelson Foundation Award

The Lemelson Foundation celebrates outstanding inventors and inspires young people to pursue inventive careers by increasing opportunities for middle school students. The winning project was recognized because it exemplifies the ideals of inventive and entrepreneurial thinking by creating a tangible invention that represents a promising solution to a real-world problem.

Award: \$100

NASA Earth Systems Science Award

Presented to the students whose project offers the greatest insight into Earth's interconnected systems.

Award: Certificate

National Geographic Society "That's Geography!" Award

In recognition of a project seeking solutions to the Earth's most pressing challenges, in particular, around oceans, land, wildlife, human history & cultures, and human ingenuity.

Award: Certificate and \$100

National Oceanic and Atmospheric Administration (NOAA) Award

This award goes to research that emphasizes NOAA's mission to understand and predict changes in Earth's environment and to conserve and manage coastal and marine resources to meet our nation's economic, social, and environmental needs.

Award: Certificate and Recognition Letter

Office of Naval Research – Naval Science Award

This award recognizes any meritorious STEM project Junior or senior division, but no teams.

Award: Certificates

Ricoh Sustainable Development Award

Presented to the student whose research has demonstrated the principles and technical innovations that offer the greatest potential for sustainable development.

Award: Certificate

Regeneron Biomedical Science Award

Awarded to an exceptional student scientist or team of scientists who not only demonstrates an impressive command of biomedical science and research, but also embodies Regeneron's core values.

Award: One certificate and \$375

Ricoh USA, Inc (Sustainable Development Award)

Presented to the student whose research has demonstrated the principles and technical innovations that offer the greatest potential for sustainable development.

Award: Certificate

Society for In Vitro Biology

To be awarded to the most outstanding 11th grade student exhibiting in the areas of plant or animal in vitro biology or tissue culture. This is an individual award.

Award: Certificate and 1-year Membership in SIVB

Stockholm Junior Water Prize

Awarded to any High School students for their outstanding achievement in water-related science projects.

Award: Certificate

U.S. Agency for International Development (USAID)

In recognition of an exceptional individual or team project that has the potential to make an impact on addressing international development challenges.

Award: Certificate, plus social media toolkit

U.S. Metric Association

This is for a student whose project involves a significant amount of quantitative measurement and which best uses the SI metric system for those measurements. All students competing in the Fair are eligible.

Award: Certificate

Yale Science and Engineering Association Inc.

This award is given to the most outstanding 11th grade student exhibiting in the areas of Science, Technology, Engineering, and Mathematics (only individual projects).

Award: Certificate and Medallion

SCHOLARSHIPS

SUNY Cortland Science Leadership Scholarship – \$13,200

This scholarship is awarded to one Senior-level participant in recognition of outstanding leadership, research, and accomplishments in the field of science.

Award: The winner of the SUNY Cortland Science Leadership Scholarship will receive \$3,300 tuition assistance for 4 years.

Syracuse Pulp and Paper Foundation at SUNY ESF – \$4,000

This scholarship is awarded to one Senior-level participant in recognition of outstanding accomplishments in the field of paper engineering.

Award: The winner of the Syracuse Pulp and Paper Foundation Scholarship will receive \$1,000 per year for four years.

SUNY ESF Scholarship - \$4,000

Award: The winner of the SUNY ESF Scholarship will receive \$1,000 per year for four years.

Upstate Dean's Award in Biological Sciences - \$500

Award: \$500

ADVANCEMENTS/GRAND PRIZES

An individual or team senior project will be selected to attend the **19th Annual Symposium on Energy in the 21st Century** "Creating Resiliency for the Future with Cleaner, More Affordable Renewable Energy."

The **RIT Genius Olympiad Awards** recognizes achievement in promotion of environmental issues and finding solutions to global environmental problems through scientific research, experimentation, and presentation. The winner will have advancement to Genius Olympiad.

Up to 10% Junior Level projects will be nominated for the **Thermo Fisher Junior Innovators**. Thermo Fisher Junior Innovators is intended to encourage, reward and celebrate the mastery of science, technology, engineering, and math among 6th, 7th, and 8th grade science fair participants. The 3 are the top 6th, 7th, and 8th grade projects.

Up to three Senior and three Junior (7th & 8th) Level projects will be chosen to attend the **New York State Science Congress** on Sunday, June 11th, 2023, hosted by the MOST in Syracuse. The Central Section of the Science Teachers Association of New York State and the MOST provide funds for registration.

Up to the three top Senior Level projects will be chosen to attend the **International Science and Engineering Fair**. Advancement and travel costs paid to ISEF in Dallas.

SPECIAL THANKS

The MOST extends our deepest thanks to our sponsors, partners, judges, and staff for their support of this program. The CNYSEF could also not happen without the dedication of teachers and parents who support student inquiry!

SCIENTIFIC REVIEW COMMITTEE

This group of volunteers reviews science fair projects to make sure the best science research practices are used and hold up to International Science & Engineering Fair standards. The SRC must include one biomedical scientist (Ph.D., M.D., D.V.M., D.D.S., or D.O.), one science teacher, and one other member. One member must be familiar with proper animal care procedures when animal research is involved.

Dr. Emily Stewart, Chair

Museum of Science & Technology

Dr. Hilary McManus

Le Moyne College

Dr. Mary Beth Monroe

Syracuse University

Dr. Peter Plumley

Syracuse University

CENTRAL NEW YORK SCIENCE & ENGINEERING FAIR 2023 COMMITTEE

This committed group of educators, scientists, engineers, and science advocates plans and organizes the **CNYSEF**. They volunteer year-round to create an exciting science fair experience for our young scientists.

Carissa Evans

Museum of Science & Technology

Halle Bristol

Museum of Science & Technology

Stephanie Herbert

Museum of Science & Technology

Lauren Kochian

Museum of Science & Technology

Tino Laterza

Museum of Science & Technology

Chris Perrine

Museum of Science & Technology; Technology Alliance of Central New York

Emily Stewart, Ph.D.

Museum of Science & Technology

Paramintr Tienpasertkij

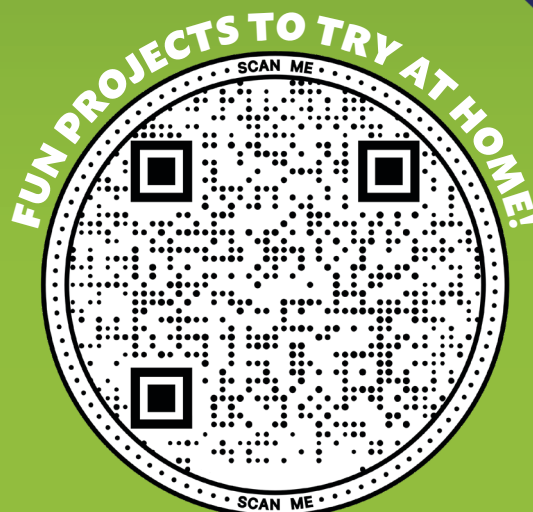
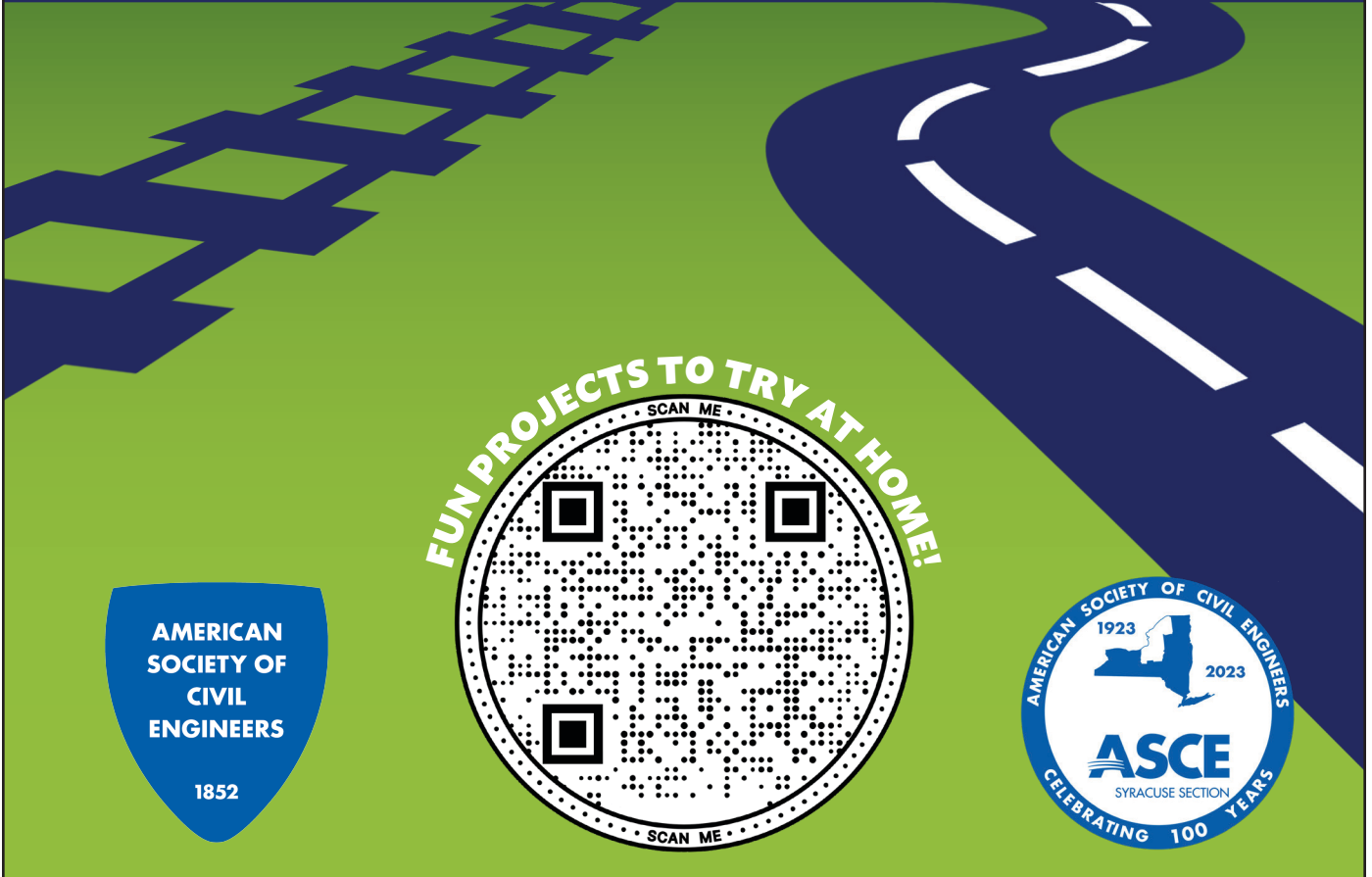
Museum of Science & Technology

Maggie Treinin

Museum of Science & Technology

CIVIL ENGINEERING

IT'S EVERYWHERE!



microbiology.

MACRO IMPACT.

Thanks to the latest innovations in aseptic (shelf-stable) processing, Byrne's top quality dairy products are available on shelves not just in Central New York, but in the Caribbean, Central America and beyond.

Every member of Team Byrne has an impact on our products – and ultimately, the lives of our customers.

Start your STEM career at Byrne today:

NOW HIRING **Laboratory Technicians**

Performs testing on production samples to determine compliance with FDA, NYS regulations, and Byrne Dairy standards.

Starting at \$20.50/hour



Apply now!



BYRNE
SINCE 1933



cscos.com

C&S plans, designs,
constructs, and maintains
the built and natural
environment.

C&S is proud to support the **CNY Science & Engineering Fair** and **STEAM education** in our community.

Engineering | Architecture | Planning | Environmental
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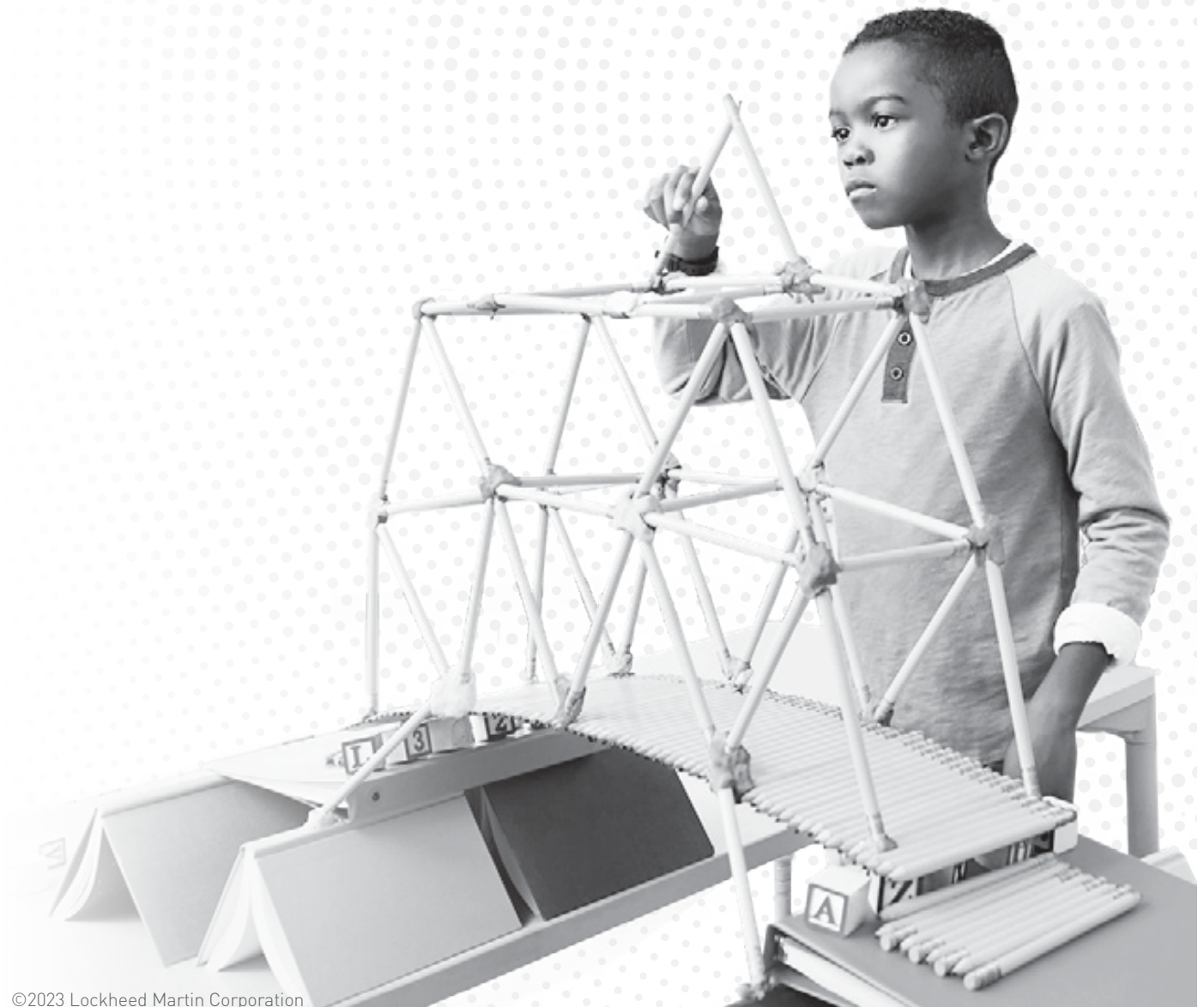
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