



DELAWARE VALLEY SCIENCE FAIRS, INC.

PROGRAM OF ENTRIES 2017

69TH DELAWARE VALLEY SCIENCE FAIRS

6th - 12th Grades

APRIL 4 - 6, 2017

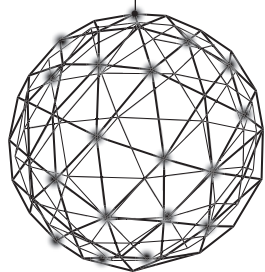
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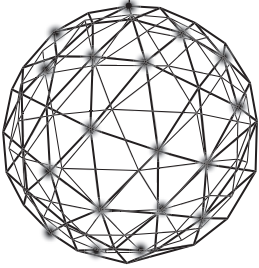
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Welcome to the 69th Annual Delaware Valley Science Fairs (DVSF). I extend congratulations to all the participants. Every student here has won an award from their Regional fairs. As I have said many times before, you are not winners because you won an award. You are winners because you started and completed a research project! This is an experience that will serve you well. The skills you learn by participating in a science fair will better prepare you for the journey ahead and I wish you all the best in the future.

LETTER FROM THE PRESIDENT



DVSF is a program whose mission is to bring parents, teachers and industry together to stimulate and nurture young people so they can grow and develop into contributing members of the community. We will continue to strive to expand our Teacher Development Program, Mentorship Program and collaborations with industry and professional societies.

The focus for DVSF is what is going on in the classroom. DVSF is designed to encourage students to think and solve problems; skills that they will need for careers, college, and citizenship. We are committed to preparing tomorrow's innovators. The Next Generation of Science Standards (NGSS) emphasizes critical thinking skills of applying knowledge, evaluation claims, providing evidence for points of view, and analyzing new situations. These are the same skills student learn when they undertake a research project and enter a science fair. It is here where intellectual curiosity and creative problem solving come into play. The importance of science competitions cannot be underestimated. It is ok if one doesn't place. It is the process of participation itself that is uniquely valuable.

Our students who competed at the Intel International Science and Engineering Fair (ISEF) in Phoenix did very well. They won 19 awards. Eight students from DVSF were also named Semi-Finalists in the Broadcom MASTERS competition for middle school students. We are all very proud of their accomplishments. DVSF provides a vehicle for all students to excel and reach their full potential.

I want to thank the following for their contributions: Drexel University, our Sponsors, the Board of Trustees, the Regional Fair Directors, our Advisory Board, the professional societies and organizations, the judges, schools and teachers, all our hard working fair volunteers, and last, but certainly not least, the parents.

We have a lot of talented young people in the tri-state area who can excel when given the chance. I feel honored to be part of this exciting program. I strongly believe that if we provide the opportunity for the natural curiosity of our young people to blossom, they will provide us with a future that is bright and prosperous.

Good Luck to you all,

Henry Disston
PRESIDENT AND EXECUTIVE DIRECTOR



COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR



GREETINGS:

It gives me great pleasure welcome everyone gathered for the 69th annual Delaware Valley Science Fairs (DVSF).

Science and engineering have been cornerstones of the commonwealth's economy for generations. Educating and encouraging youth to continue this legacy is fundamental to prosperity and progress. I commend DVSF and its partners for endeavoring to provide inspiration and opportunity for participation in STEM fields. During this competition, students will demonstrate not only innovation in their projects, but tremendous ambition and dedication beyond the classroom. I applaud the students here today for their outstanding achievements, and I am certain they will continue to have a positive impact across the commonwealth and beyond for many years to come.

As Governor, and on behalf of all citizens of the Commonwealth of Pennsylvania, I am delighted to welcome you to the 69th annual science fair. Please accept my best wishes for continued success.



Tom Wolf
TOM WOLF
Governor
April 4-6, 2017



CITY OF PHILADELPHIA

OFFICE OF THE MAYOR
215 City Hall
Philadelphia, PA 19107
(215) 686-2181
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JAMES F. KENNEY
Mayor

April 5, 2017

Dear Friends:

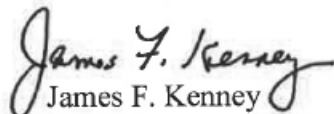
It is a pleasure to welcome you to the 69th annual Delaware Valley Science Fairs (DVSF) and Competition at the Greater Philadelphia Expo Center on Wednesday, April 5, 2017.

The impressive accomplishments of these students highlight our region as the proud home of renowned centers of science education and research. This area has rightfully earned its national reputation as a hub for the exploration and development of new technology. With an ever-increasing emphasis on the potential for careers in Science, Technology, Engineering and Mathematics (STEM), Philadelphia's STEM education leaders have devised a most creative way to motivate children and youth to pursue their interest in science. The innovative inquiry-based hands-on approach to learning STEM has been very successful and is a top priority in the state standards for Pennsylvania and New Jersey.

DVSF continues to host more students every year and more than 1,000 students from Southeastern Pennsylvania, Southern New Jersey, and Delaware will compete this year for over \$2 million in scholarship funds and prizes. Students in grades 6 – 12, who have completed STEM research projects, submit independent research in 15 scientific categories for review. The top students then advance to the Intel International Science and Engineering Fair in May where 1,500 students from across the nation and the world compete for more than \$4 million in scholarships and prizes.

On behalf of the City of Philadelphia, I wish all of the competing students the very best of luck and salute them for their interest in science. I encourage you to continue to pursue your passion in these subjects and consider the many rewarding and challenging careers it can lead to. I also commend the DVSF for sustaining this most innovative program and thank DVSF for its support of students on the path to a quality STEM education.

Sincerely,


James F. Kenney
Mayor

A number of organizations and individuals have contributed gifts of cash, services and facilities to the 2017 Delaware Valley Science Fairs. We extend our thanks to all of you, who through your support, have underwritten the costs of conducting this program.

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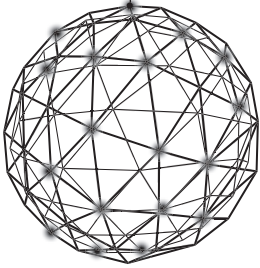
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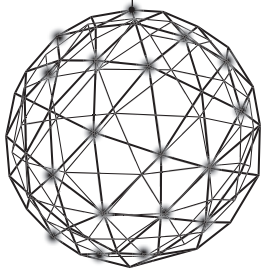
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American Entomological Society/Calvert Award
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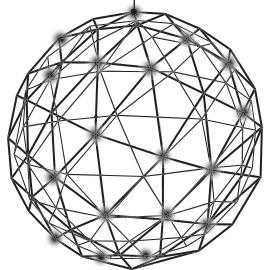
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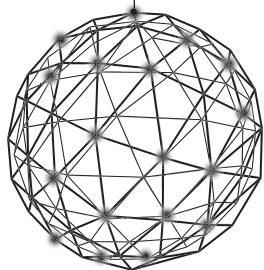
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Delaware Valley Science Fairs, Inc. (DVSF) was founded in 1949. Today, DVSF is a non-profit entity located at and partnering with Drexel University. It is now also one of the largest and oldest fairs in the country. The Fairs were designed as a vehicle for stimulating interest in STEM (Science, Technology, Engineering and Mathematics) among students in middle and high schools in the tri-state area. The philosophy behind the Fairs is that students learn science by *doing* science.

The Delaware Valley Science Fairs comprise five separate competitions: with a fair each for 6th through 8th, 9th, 10th, 11th and 12th Grades. Society for Science and the Public provides a uniform structure and rules, and franchises all regional fairs at the high school level in the United States and in over 70 foreign countries.

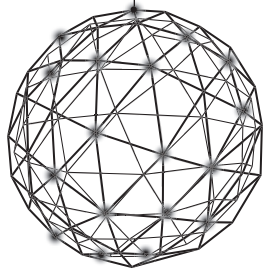
In the fall of each school year, teachers introduce the science fair program as an extracurricular activity or as part of the curriculum. Students choose from one of 14 categories (these categories are listed in the Table of Contents). Along the way, their topics and methodology are reviewed by the DVSF Scientific Review Committee to guarantee that proper scientific safety procedures and federal guidelines are being followed.

Within each category, First, Second, and Third Place winners are chosen by teams of judges who sometimes also designate Honorable Mention awards. After category winners are selected in each fair, separate teams of Medals judges select Gold, Silver, and Bronze Medal winners from among the category winners.

All medal winners in the 9th through 12th grade earn an all-expense-paid trip to the 68th Intel International Science and Engineering Fair (ISEF), to be held this year in Los Angeles, California on May 14 through 19. At the ISEF, Delaware Valley's twelve high school medal winners, and first place high school team winners will compete against winners from other regional fairs in the United States, American Samoa, Argentina, Australia, Austria, Azerbaijan, Bangladesh, Belarus, Brazil, Bulgaria, Canada, Chile, China, Chinese Taipei, Columbia, Costa Rica, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia Republic, Germany, Guam, Hungary, India, Indonesia, Iraq Republic, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Luxembourg, Malaysia, Mexico, Moldova, Netherlands, Nigeria, Northern Ireland, Norway, Pakistan, Palestine, Panama, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, the United Kingdom, Uruguay, Vietnam and Virgin Islands.

Teachers are selected from a pool of applicants to attend ISEF, along with our teacher award winners all expenses paid.

FOREWORD



Honoring Dick Close

DELAWARE VALLEY SCIENCE FAIRS:

A CULMINATION OF THIRTEEN REGIONAL FAIRS THROUGHOUT THE DELAWARE VALLEY

Each student who competes in the Delaware Valley Science Fairs (DVSF) is already a winner. They have won the right to compete in the DVSF by winning in one of thirteen regional fairs in Delaware, Southern New Jersey and Southeastern Pennsylvania.

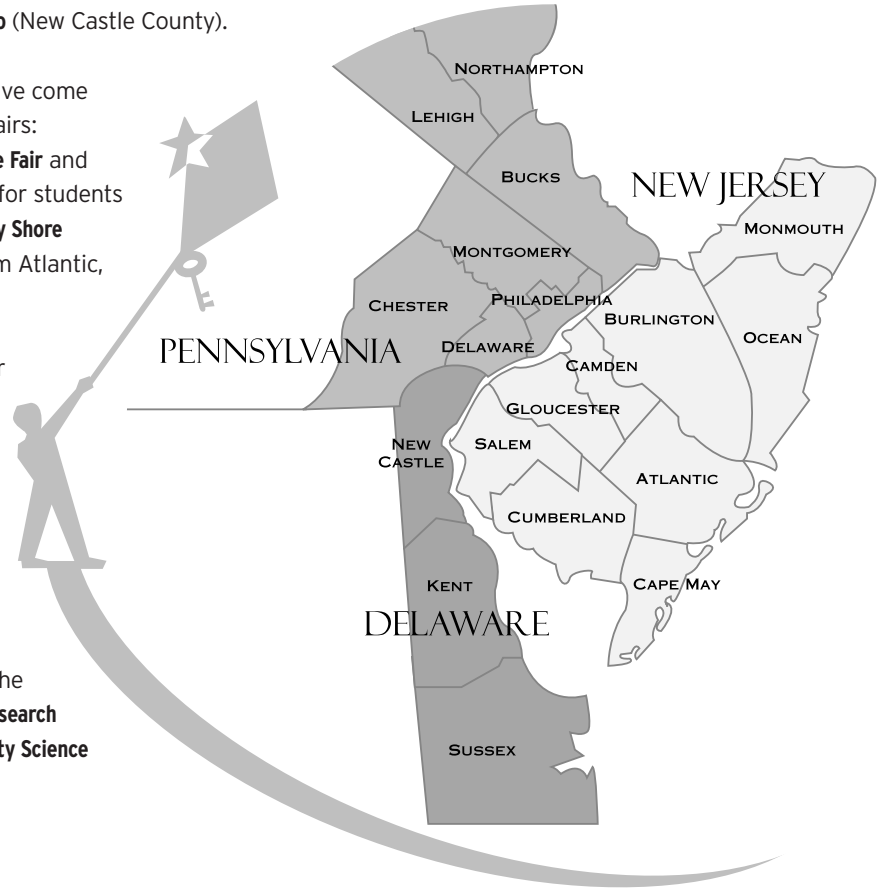
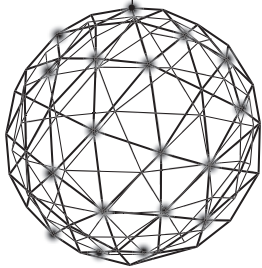
Fair, the **George Washington Carver Science Fair** for Philadelphia County, and the **Lehigh Valley Science and Engineering Fair** for Lehigh and Northampton Counties. Many students were honored as winners in earlier fairs held at their schools and by their school districts.

Delaware competitors have come from the **Sussex County Science Fair**, **Kent County Science Fair**, and from the **Delaware Tech Science Expo** (New Castle County).

New Jersey competitors have come from one of four regional fairs: the **Cumberland County Science Fair** and the **Salem County Science Fair** for students in those counties, the **Jersey Shore Science Fair** for students from Atlantic, Cape May, Monmouth, and Ocean Counties and the **Coriell Institute Science Fair** for students from Burlington, Camden, and Gloucester Counties.

Students from Southeastern Pennsylvania have come from the **Bucks County Science Fair**, the **Delaware County Science Fair**, the **Montgomery County Science Research Competition**, the **Chester County Science**

TWELVE REGIONAL FAIRS



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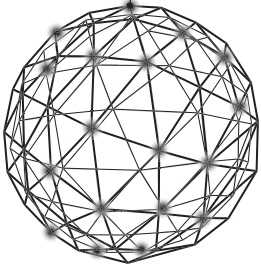
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Teacher Workshop

The sponsors of the Delaware Valley Science Fairs (DVSF) provide several kinds of awards to student winners. These awards are intended to demonstrate the high value sponsors place on achievement by middle and high school students in STEM.

MEDALS

Gold, Silver and Bronze Medals will be presented to three individuals in each Grade, selected from the first place category winners.

ALL-EXPENSE-PAID TRAVEL TO THE INTEL INTERNATIONAL SCIENCE AND ENGINEERING FAIR (ISEF)

The Gold, Silver and Bronze Medal Winners of the 9th, 10th, 11th and 12th grade Fairs will receive an all-expense-paid trip to the 67th ISEF in Los Angeles, California from May 14th - 19th, 2017. The Medal Winners will compete at ISEF representing DVSF. The first place team project from the 9th through 12th grades will also receive an all expense paid trip and compete at ISEF. Selected teachers will also receive an all-expense-paid trip to the ISEF. Approximate value: **\$1,500 per person.**

CATEGORY AWARDS

Each of the first place winners in the five Delaware Valley Science Fair's categories of the competition will receive \$100, second place winners will receive \$75 and third place winners will receive \$50 along with their medal and certificate. Approximate value: **\$15,300**

SCHOLARSHIPS

Drexel University will offer **five partial tuition** scholarships valued at \$8,000 per year to students in the 11th Grade for use at Drexel University when the student enrolls and is renewable for up to five years pending maintenance of a 3.0 grade point average and full-time status. All scholarships go into effect upon the recipients meeting university admissions criteria. Approximate value: **\$200,000**



University of the Sciences will award scholarships to first, second and third place winners of the 11th Grade Fair. Scholarships are to be allocated toward tuition only and become effective upon enrollment

in the incoming class of fall 2017 in any undergraduate or first-professional program offered at University of the Sciences. Each scholarship is renewable for up to four years provided the recipient is enrolled as a full-time undergraduate or first-professional student in good academic standing with the University. The awards will be distributed as follows:

1st Place Winners - \$15,000 per year
2nd Place Winners - \$12,000 per year
3rd Place Winners - \$10,000 per year

Approximate value: **\$1,924,000**

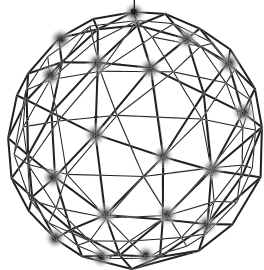
The Dietrich W. Botstiber Foundation offers an **\$8,000** unrestricted scholarship to a 12th grader with a project related to aviation. The student will be awarded a \$2,000 per year, for 4 years pending maintenance of full-time status.

Harrisburg University of Science & Technology: The Science and Technology Scholar Award will cover up to \$20,000 for four (4) Academic Years at Harrisburg University of Science and Technology, less all federal and state grants. This does not require that you file the Free Application for Federal Student Aid (FAFSA) after October 1, but before the start of the academic year, complete any federal or state grant applications by their deadlines. Once we have received your FAFSA data, we will provide you with a complete financial package that details your overall aid eligibility. This award is not transferable and nor is it stackable with any other scholarship from Harrisburg University. Questions can go to: sinfanti@harrisburgu.edu. This award is eligible to every junior and senior who participate at DVSF.

Special Awards: DVSF partners with area Professional Societies and Organizations. Many of whom give additional special awards to selected students whose projects reflect the mission and goals of the societies and organizations.

Approximate value: **\$32,725**

MEDALS, SCHOLARSHIPS AND AWARDS

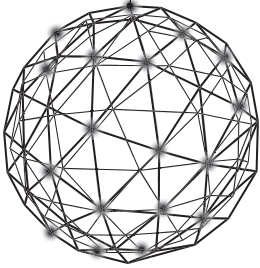


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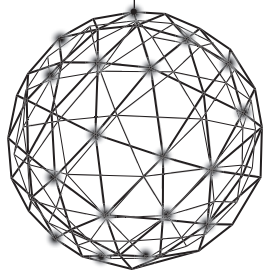
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CATEGORY DESCRIPTIONS



Behavioral and Social Sciences

Human and animal behavior, social and community relationships - psychology, sociology, anthropology, archaeology, ethology, ethnology, linguistics, learning, perception, urban problems, reading problems, public opinion surveys, educational testing, etc.

Biochemistry

Chemistry of life processes - cell biology, molecular genetics, enzymes, photosynthesis, blood chemistry, protein chemistry, food chemistry, hormones, etc.

Botany

Study of plant life - agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc.

Chemistry

Study of nature and composition of matter and laws governing it - physical chemistry, organic chemistry (other than biochemistry), inorganic chemistry, materials, plastics, fuels, pesticides, metallurgy, soil chemistry, etc.

Computer Science

Study and development of computer software and hardware and associated logical devices.

Earth and Space Sciences

Geology, mineralogy, physiography, oceanography, meteorology, climatology, astronomy, geology, speology, seismology, geography, etc.

Engineering

Technology; projects that directly apply scientific principles to manufacturing and practical uses - civil, mechanical, aeronautical, chemical, electrical, photographic, sound, automotive, marine, heating and refrigerating, transportation, environmental engineering, etc.

Environmental Sciences

Study of pollution (air, water, and land) sources and their control; ecology.

Mathematics

Development of formal logical systems or various numerical and algebraic computations, and the application of these principles - calculus, geometry, abstract algebra, number theory, statistics, complex analysis, and probability.

Medicine and Health

Study of diseases and health of humans and animals - dentistry, pharmacology, pathology, ophthalmology, nutrition, sanitation, pediatrics, dermatology, allergies, speech and hearing, etc.

Microbiology

Biology of microorganisms - bacteriology, virology, protozoology, fungi, bacterial genetics, yeast, etc.

Physics

Theories, principles, and laws governing energy and the effect of energy on matter - solid state, optics, acoustics, particle, nuclear, atomic, plasma, superconductivity, fluid and gas dynamics, thermodynamics, semiconductors, magnetism, quantum mechanics, biophysics, etc.

Zoology

Study of animals - animal genetics, ornithology, ichthyology, herpetology, entomology, animal ecology, paleontology, cellular physiology, circadian rhythms, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.

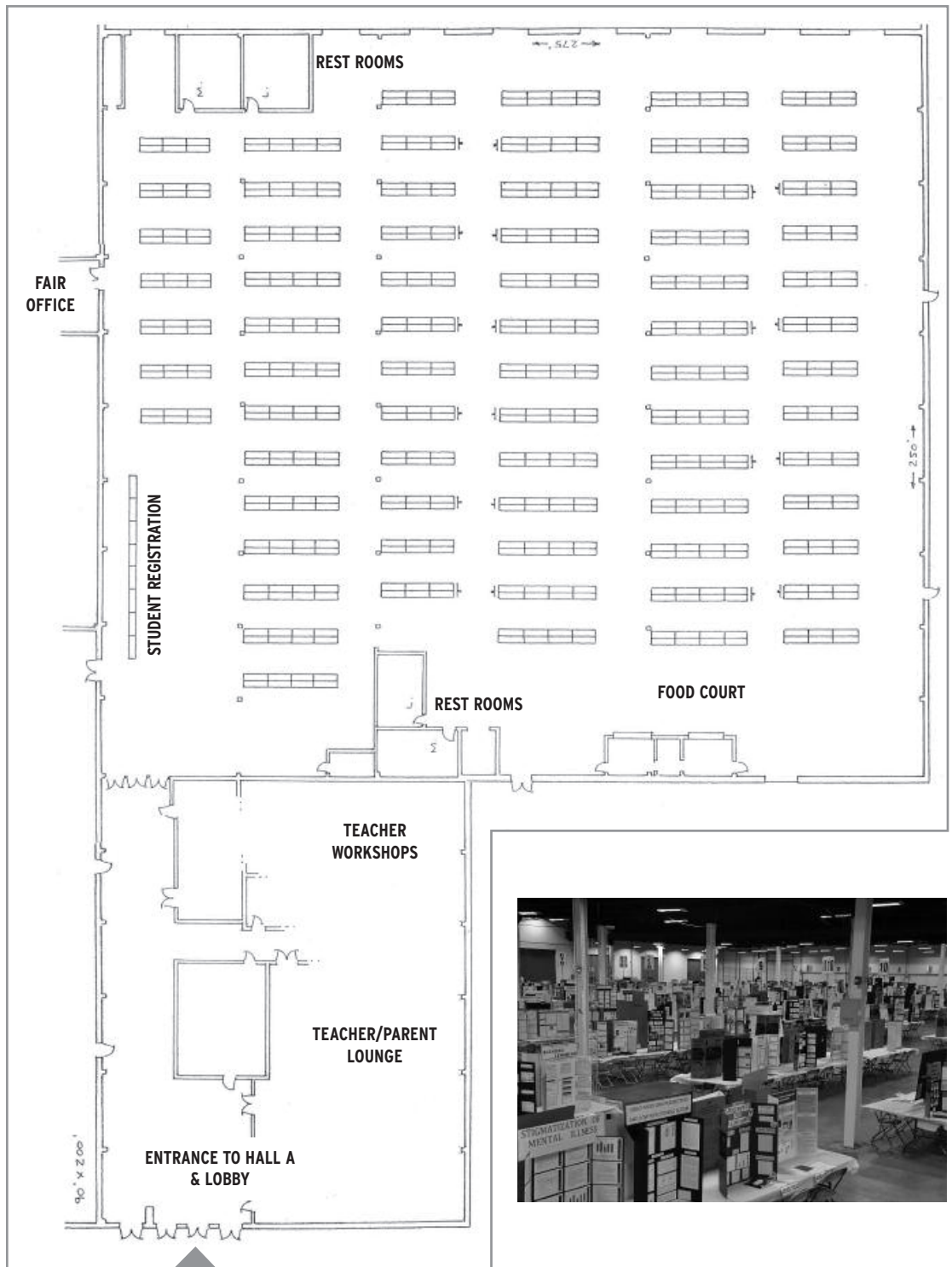
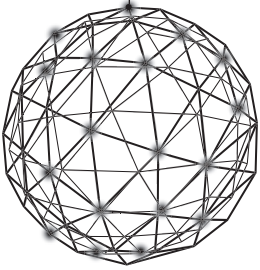
Team Projects

All disciplines - multidisciplinary or interdisciplinary. Projects consist of 2 or 3 team members.

Consumer Science (grades 6-8, only)

Study of various consumer products like batteries, soaps, detergents, foods, paper towels, cosmetics, etc. These are usually, but not always, comparison studies.

THE GREATER PHILADELPHIA
EXPO CENTER
2017 FLOOR PLAN



PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BEHAVIORAL/SOCIAL SCIENCES**

A0101	Cassidy Power	Empathy in the Digital Age	Parkland High School Christopher Gahman
A0102	Ivan Pacheco	Sleeping Project	SCSSD (Daretown) Rick Hughes
A0103	Megan McDonnell	Effects of Exercise on Mental Capacity of Mus musculus Over Two Weeks	Council Rock High School-South Matthew Ciaudelli
A0104	Noelle Mlynarczyk	The Effect of Video Games on Morality	Germantown Academy Sarah Kesten
A0105	Alexa Gilligan	The Effects of Inaudible Sounds on Memory	Bishop Shanahan High School Kathy Gilligan
A0106	Rachel Allen	Effectiveness of Compression Garments on Muscle Recovery	Cherry Hill High School East Aileen Constans
A0107	Pagona Kytzidis	Absorption and the Phenomenology of Music	Cheltenham High School Russell Wolff
A0108	Ashley Abbonizio	Palmar Dermatoglyphics and Personality	Bishop Shanahan High School Mary Ann Abbonizio
A0109	Kayleigh Soucy	The Duration of Music in Music Therapy on the Efficacy of the Treatment	Toms River High School South Christine Girtain
A0110	Mary Connor	The Effect of Timbre on Chord Interpretation	Springfield High School Mary Barry/Stephanie Elgart

BIOCHEMISTRY

A0201	Ceren Alici	Eggs vs. Teeth	Liberty High School MacLeon Pearson
A0202	Chaitanya Nimmagadda	Cellulase Production by Aspergillus Niger	Council Rock High School-North Terese Grateful
A0203	Carina Tse	In Silico Quantum Study of Stability of RNA under Radiation on the Mars Mission	Methacton High School Robert Helm
A0204	Kayleigh McGinley	Research in the Crossbreeding of GMO and non GMO Soybeans	Council Rock High School-South Matthew Ciaudelli
A0205	Shravya Jasti	Evaluating the Effectiveness of Copper and Silver Ions in Removing Contaminants From Waste Water	Holmdel High School Josephine Blaha
A0206	Richard Niu	A Possible Treatment of Alzheimer's via Protein Quality Control	Germantown Academy Sarah Kesten
A0207	Alex Blumenthal	How Does Ambient Temperature Affect Action Potentials?	Easton Area High School Penny Diehl
A0208	Josiah Greene	The Effects of pH, Temperature, and Enzyme to Substrate Ratio on Catalase Activity	Chester County Greene Homeschool David Greene

BOTANY

A0301	Jessica Rubanich	The Effects of Different Concentrations of Hydrogen Peroxide on Plant Seed Germination	Council Rock High School-South Matthew Ciaudelli
A0302	Michael Couch	Deadly Wi-Fi: Discovering the Impact of Wireless Networks on Developing Lolium Seeds	Easton Area High School Penny Diehl



2017 12TH GRADE ENTRIES

PRESENTER

A0303 Danny Glickman

A0304 Daniel Gulko

EXHIBIT

Development of a Molecular Biomarker for the Prediction of Toxic Algal Blooms

Water Purification of Heavy Metal Ions Using Cilantro, Parsley, and Lettuce

SCHOOL & SPONSORCentral Bucks High School-West
Mark HaydenHolmdel High School
Josephine Blaha**CHEMISTRY**

A0401 Braden Cody

A0402 Pedro La Rotta

A0403 Maya Ravichandran

A0404 GianCarlo Seixas

A0405 Sneha Sharma

A0406 Allison Young

Exploring the Reduction of Graphene Oxide

Banana Peel Polymer as an Alternative to Common Plastics

Investigation of Effects of Sulfate Attack on Local Atomic Structure of Alkali-Activated Slag Cement

The Effects of Blend Ratios on Cold Water Efficiency of Biodiesel

Extracting and Characterizing Biofuels from Spent Coffee Grounds and Waste Pine Needles

Using Light To Find Concentrations

Germantown Academy
Sarah KestenLiberty High School
MacLeon PearsonHigh Technology High School
Michael RocheLiberty High School
MacLeon PearsonHolmdel High School
Josephine BlahaWoodstown High School - Pilesgrove High School
Chris Rickard**COMPUTER**

A0501 Joseph Signorelli

A0502 Sagar Maheshwari

A0503 Bennett Nolan

A0504 Calvin Yu

A0505 Briana Cowles

A0506 Gavin Rees

Development of a Daily Educational Android Application

Site Key: A Novel Binding Site Predictor for Ordered Proteins Interacting with Intrinsically Disordered Proteins

Secure Password Generator with User Input

Convolutional Neural Networks and Image Classification

Modeling Nuclear Contamination with Fractals

Adversarial Model Networks for Machine Learning

Toms River High School North
Christine GirtainUnionville High School
Sandra LitvinGermantown Academy
Sarah KestenCouncil Rock High School-North
Terese GratefulVilla Joseph Marie High School
John BoyleGermantown Academy
Sarah Kesten**EARTH & SPACE SCIENCES**

A0601 Olivia Cantrell

A0602 Denver Bradley

A0603 Noah Weiss

Isolation of LDPE Degrading Bacteria from Landfill Soil

Determining the Relationship between Side Scan Sonar Backscatter and Sediment Size

Comparison of Different Methods of Mapping Carex kobomugi

Central Bucks High School- West
Mark HaydenThe Marine Academy of Science and Technology
Liza BaskinThe Marine Academy of Science and Technology
Liza Baskin**ENGINEERING**

A0701 Alysa Dinh

A0702 Magdalena Limon-Gutierrez

A0703 Spencer Hoffman

Engineering a Device to Help Deaf Experience Music

Safety Without Restraint

Enhanced Electricity Distribution via Intelligent Interconnected Nodes

Academy of Notre Dame de Namur
Emily GiannantonioWoodbridge High School
Chris HavrillaHoffman Homeschool
Beth Hoffman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
A0704 Blya Krouba	The Effect of Moisture on the Angle of Repose	Upper Darby High School Roseann Burns
A0705 Kerri McBride	Accelerating Printed Electronic Developments in Hybrid Electronics: Optimizing the Material Selection of Surface Mount Devices	McBride Homeschool Kerri McBride
A0706 Charlotte Lang	Artificial Cartilage Derived from Bioplastic	Council Rock High School-North Terese Grateful
A0707 Swathi Pavuluri	A Novel Device for Eliminating Airborne Pathogens	High Technology High School Michael Roche
A0708 Chloe Wszolek	Risk of Concussion Wearing a Riddell 360 Helmet	Council Rock High School- South Matthew Ciaudelli
A0709 Harrison Weiss	Is Osmosis a Practical Form of Renewable Energy Creation?	Cheltenham High School Russell Wolff

ENVIRONMENTAL

A0801 Alexander Foglia	Effect of Water and Fertilizer on Olive Oil Production	Germantown Academy Sarah Kesten
A0802 Shreya Chodisetty	Bioremediation of 3-NBA through the Use of Natural Microbes	Central Bucks High School- West Mark Hayden
A0803 Piper Jones	Bioremediation Using the Mycelium of Pearl Oyster Mushrooms	Council Rock High School- North Terese Grateful
A0804 Mick Zimmerman	Investigating the Correlation Between Proximity of Industry and Mercury Concentrations in Local Wildlife	The Marine Academy of Science and Technology Liza Baskin
A0805 Matthew Braun	The Effect of Specific Dyes on Dye-Sensitized Nanocrystalline Solar Cells	Cherry Hill High School East Aileen Constans
A0806 Regina Salzer	Sunscreen's Effect on Bioluminescent Dinoflagellate	Council Rock High School-North Terese Grateful

MATHEMATICS

A0901 Vivek Gopalan	Quantifying the Cost for Equitable Fire Engine Company Loads	Methacton High School Robert Helm
A0902 Mark Baker	Analysis of Derelict Fishing Gear in Barnegat Bay	Marine Academy of Tech/Environmental Science John Wnek
A0903 Natalie Weaver	The Golden Ratio	Springfield High School Mary Barry
A0904 William Watkins	Reducing the Dimensionality of Protein Sequences with an Autoencoder	Central Bucks High School-West Mark Hayden
A0905 Margaret Palko	Pennsylvania in the 2016 Election and Why it Turned Red	Methacton High School Robert Helm
A0906 Tom Wade	On the Application of Regular Perturbation Theory to Integrating Factors of ODEs	Council Rock High School- North Terese Grateful
A0907 Evan Campbell	Statistical Values of Centrality Score	Cherry Hill High School East Aileen Constans
A0908 Karl Roush	Drone Based Signal Quality Map	High Technology High School Michael Roche

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****MEDICINE/HEALTH**

A1001	Allyson Winters	The Effects of Calcium on Axon Regeneration in Alzheimer's Disease Using a Caenorhabditis Elegans Model	Toms River High School North Christine Girtain
A1002	Elizabeth Luscavage	Do Progressive Glasses Get Remade More Than Single Vision Glasses?	Octorara Area High School Lonnie Luscavage
A1003	Madison Fretz	Do Males and Females Have the Same Lung Capacity?	Bishop Shanahan High School Mary Fretz
A1004	Ashley Cooper	Save the Neurons: Spectral Imaging of Brain Pathology	Cherry Hill High School East Aileen Constans
A1005	Shreyaa Kassim	Transforming Vitamin Capsules Into Orally Dissolving Films	Council Rock High School- North Terese Grateful
A1006	Honorio Torres	Bicycle Helmets and their Protection from Concussion	Woodbridge High School Rebecca Evaristo
A1007	Megan Muller	Has the Efficacy of Influenza Vaccines Improved?	Bishop Shanahan High School Margaret Muller
A1008	Sanjna Shelukar	Immunotherapy for Multiple Myeloma Cell Lysis	Wissahickon High School Christine Brandt
A1009	Kaitlin Hershey	The Pressure's On!	Bishop Shanahan High School April Hershey

MICROBIOLOGY

A1101	Corson Chao	Antibiotic Mechanism-of-Action Monitored with Second-harmonic Laser Scattering	North Penn High School Melody Leithold
A1102	Joseph Crooks	Lipid Accumulation in Algae Under a Biofuel Lens	Council Rock High School- North Terese Grateful
A1103	Neda Mahjour	Antimicrobial Properties of Various Dental Cements	Souderton Area High School Karen Wolf
A1104	Rachel Swope	Establishing HBV Replicons	Central Bucks High School-West Mark Hayden
A1105	Alexis Schneider	S. oneidensis MR-1 Redox State and Biosensor Expression	Upper Dublin High School Joanne Lilliendahl
A1106	Rachana Mudipalli	Identifying Mutational Spectrum Biases in the SOS Pathway	Downingtown STEM Academy Zach Hostetler



PRESENTER**EXHIBIT****SCHOOL & SPONSOR****PHYSICS**

A1201	Le Trinh	PROSPECT: Characterization of the Laser Calibration System	Upper Darby High School Roseann Burns
A1202	Nathaniel Watkins	Effect of Composition on the Manipulation of Light through Electrically Controlled Polaritons on 2D Materials	Central Bucks High School- West Mark Hayden
A1203	Julianna Ohnjec	The Effect of Material Density on Sound Insulation	Collegium Charter School Leslie Seifert
A1204	Benjamin Vaupen	Effect of Different Materials on Reducing the Force of Impact	Cherry Hill High School East Aileen Constans
A1205	Brett Warfield	Water Energy	SCSSD (Daretown) Rick Hughes
A1206	Meghan Darcy	Acoustical Properties on Various Building Materials	Central Bucks High School-West Mark Hayden
A1207	Hongchen Huang	Electrolyte-Battery Effect	Northeast High School James Finley
A1208	Joseph Nagy	Stabilizing Einstein-Rosen Bridges	Lacey Township High School John Kuzan
A1209	Jordyn Lynn Armstrong	Rockets: Engineering the Perfect Flight	Villa Joseph Marie High School John Gentile

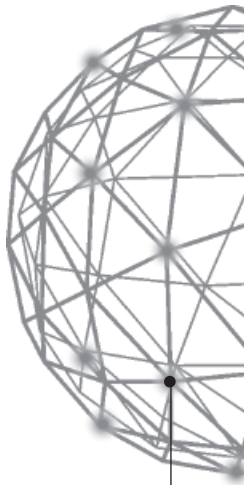
ZOOLOGY

A1301	Andrew Huang	Investigation of the Microbiome of Cephalotes Ants	Germantown Academy Sarah Kesten
A1302	Katherine Scott	Quantifying Sources of Phenotypic Variance in Fitness-related Traits of Early Life stages of Atlantic Silverside, <i>Menidia menidia</i>	The Marine Academy of Science and Technology Liza Baskin
A1303	Hope Boone	Planarian C Shape Behavior: Seizure, Pain, or Muscle Contraction	Central High School Van Truong
A1304	Kristen Haynes	Examining the Correlation Between Mercury Concentrations in Tissue, Otoliths, and Fin Clips and Implications for Fisheries Mercury Monitoring Programs	The Marine Academy of Science and Technology Liza Baskin



PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BEHAVIORAL/SOCIAL SCIENCES**

B0101	Diana Nguyen	Driving to the Beat	Philadelphia Academy Charter High School Joyce Zeka
B0102	Adil Shad	Aerobic Activities Relation to Cognitive Ability	Charter School of Wilmington Adetola Magbageola
B0103	Jaspreet Singh	What is the Effect of Age and Degree of Attractiveness on the Perception of Beauty in Real vs. Composite Faces?	Parkland High School Christopher Gahman
B0104	Laura Olsen	Mandela Madness	Dock Mennonite Academy High School Kellena Smith
B0105	Adriana Nowrouzi	The Long-Term Effects of Cognition on Concussion History	Marine Academy of Tech/ Environmental Science John Wnek
B0106	Arathi Pillai	An Analysis of the Correlation Between Parenting Styles and the Academic Success of First Born Children	Springfield High School Mary Barry/Stephanie Elgart
B0107	Miles Hanamirian	Exposure to Nature Enhances Mental Health	Germantown Academy Sarah Kesten
B0108	Calista Chigbu	Assessing the Subitizing Range Through Spatial Patterns	Charter School of Wilmington Adetola Magbageola
B0109	Nur Bookwala	Judging Creativity: The Effects of Race and Gender	Parkland High School Christopher Gahman
B0110	David Cheng	Effects of Sleep Deprivation on Cognitive Memory	Cherry Hill High School East Aileen Constans
B0111	Aheli Chatterjee	Appropriately Delivered Curcumin Causes Recruitment of Natural Killer Cells into Glioblastoma Brain, Stabilizing M1 Polarization of Tumor-Associated Microglia	Manalapan High School Probal Chatterjee
B0112	Michael McGarrigle	The Effect of Music Tempo on Shopping Duration	Springfield High School Mary Barry/Stephanie Elgart
B0113	Dayana Lovera	The Power of GRIT: How Can We Develop Stamina in Students?	Camden Academy Charter High School Madeline Fenner
B0114	Kathryn Medrow	The Effect of Caffeine on Mutant and Wild-Type C. Elegans Twitches	Biotechnology High School Julie Nowicki
B0115	Andrew Cramer	The Effect of the Number of Hours of Sleep on Physical and Cognitive Performance	Springside Chestnut Hill Academy Scott Stein
B0116	Louis Costello	The Effect of Parental Influence on Adolescent Brand Selection Tendencies	Springfield High School Mary Barry/Stephanie Elgart
B0117	Tiffany Tieu	The Experience of Autonomous Sensory Meridian Response	Cheltenham High School Russell Wolff
B0118	Christie Campbell	The Halo Effect	Philadelphia Academy Charter High School Joyce Zeka



2017 11TH GRADE ENTRIES

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
BIOCHEMISTRY		
B0201 Helen Jiang	Clot Contraction in Gallus gallus domesticus Blood Thrombocytes	Central High School Van Truong
B0202 Isaac Wilkins	Effect of Sound Waves on Amyloid Beta Protein	Germantown Academy Sarah Kesten
B0203 Sarah Liszewski	Do All Proteins Denature at the Same Rate?	Philadelphia Academy Charter High School Joyce Zeka
B0204 Aryaman Khandelwal	Understanding Aging and Cardiovascular Disease: Epigenome Wide Association Methods to Assess the Relationship Between Mitochondrial DNA Copy Number and DNA Methylation	Parkland High School Christopher Gahman
B0205 Nathan Wong	An Analysis of Drug Development	Germantown Academy Sarah Kesten
B0206 Citlalli Jimenez	Novel Synthesis of Benzimidazoles	Bridgeton High School Claudia Angle
B0207 Sarah Lin	The Effect of Varying Concentrations of Safranin-O on Cold Tolerance of Arabidopsis thaliana	Biotechnology High School Julie Nowicki
B0208 Sean Edling	Anticoagulant and Antimicrobial Properties of Earthworm Tissue	Springside Chestnut Hill Academy Scott Stein
B0209 Sanjana Akula	Investigating Selenium and Sulforaphane as a Treatment for Diabetes through DJ-1 Expression	Routh Home School Vanessa Routh
B0210 Remya Brown	Effect of Temperature on Concentration of Starch with Amylase	Wissahickon High School Christine Brandt
B0211 Jonathan Arditi	DNA Quantification with Polymerous Chain Reaction in Fragaria x ananassa and Capsicum annum	Owen J Roberts High School Laura George
B0212 Lydia Hu	Analyzing Drug Binding on the Hepatitis B Virus Capsid Protein	Central Bucks High School- West Mark Hayden
B0213 Natalia Orlovsky	Electronic Cigarette Vapor and the Induction of the Xenbiotic Response in Lung Epithelial Cells	Garnet Valley High School Yevgeniya Orlovsky

BOTANY

B0301 Mackenzie Ramsey	Which Factors Affect Banana Ripening?	Springside Chestnut Hill Academy Scott Stein
B0302 Ashley Kunkel	Comparison of the pH Effect on Petal Pigmentation	Upper Dublin High School Joanne Lilliendahl
B0303 Gail Sloh	Rad Radishes	George Washington High School Anita Abraham
B0304 Satvik Kakkar	Effects of Pollutants on Plant Development	Methacton High School Robert Helm
B0305 Matthew Thompson	The Effect of pH on Chlorophyll Concentration of Raphanus Sativus	Wissahickon High School Christine Brandt
B0306 Myra Granato	Molecular Mapping of New Phase Change Mutations in Arabidopsis	Central High School Van Truong
B0307 Joe Vecchio	Effects of Varying Glucose Concentration on the Growth of Gravity Persistent Signal (GPS) Arabidopsis Thaliana Mutants	Biotechnology High School Julie Nowicki
B0308 Sophia Swartz	Molecular-Based Selection for Anthocyanin in Lactuca sativa, Year Two	Central Bucks High School- South Brian Testa
B0309 Alvin Liu	The Effect of Methyl Jasmonate Concentrations on Anthocyanin Expression in Wild-type and Mutant Strains of Arabidopsis thaliana	Biotechnology High School Ann MacLean

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
CHEMISTRY		
B0401 Simon Blanchard	Oil Be Gone: Using Electromagnets to Remove Oil From Ocean Water	Bishop Shanahan High School David Blanchard
B0402 Collin Schmidt	Comparison of the Effectiveness of Different Deicers' Ability to Influence Grip on Roads	Central Bucks High School- West Mark Hayden
B0403 Thomas Nguyen	Strength of Different Compositions of Bioplastics	Upper Darby High School Roseann Burns
B0404 Seungkwon Son	Efficient Method of Producing Large Quantities of Graphene Through Electrochemical Exfoliation of Graphite	Parkland High School Christopher Gahman
B0405 Grace Cords	The Effects of Water Acidity on Goldfish Respiration Rate	Charter School of Wilmington Christopher Kramer
B0406 Julia Pittre	Does pH Affect Corrosion Rate?	Bethlehem Catholic High School Anthony Messina
B0407 Omar Cruz	Characterization of Acidic Ionic Liquids	Bridgeton High School Claudia Angle
B0408 Sheena Abraham	Determining the pH Substance of Cranberry Juice Through Titration	George Washington High School Anita Abraham
B0409 David Li	Testing the Properties of Shear Thickening Fluids	Germantown Academy Sarah Kesten
B0410 Avery Cunningham	Detection of Heavy Metal Contamination in Soil Using a Low-Cost Home-Built Spectrometer	Lacey Township High School John Kuzan
B0411 Pooja Gouri	The Effects of Gold Nanoparticle Penetration into Saccharomyces cerevisiae Cells	Charter School of Wilmington David Stover
B0412 Antonio Diaz	To What Extent Does Vitamin C Decompose Upon Heating?	Bethlehem Catholic High School Anthony Messina
B0413 Sophia Breslin	Reducing Protein Aggregation Caused by Metal Ions in Solution	Dock Mennonite Academy High School Kellena Smith
B0414 Nizom Djuraev	Neutralization of Heartburn with Natural vs. Synthetic Antacids	George Washington High School Anita Abraham
B0415 Timothy Feng	Is Sawdust the Best Wood Pulp to Create Pykrete?	Upper Dublin High School Joanne Lilliendahl
B0416 Arushi Sahay	Effect of Temperature on Antimony Concentration in PET Plastic Water Bottles	Unionville High School Sandra Litvin
B0417 Shehbeel Arif	Nanocrystalline Chlorophyll Based Photoelectric Cell	Central High School Van Truong
B0418 Christina Kim	The Effects of Wear on Exterior Paint	Charter School of Wilmington Gregory Darone

COMPUTER

B0501 Patrick Taylor	Improving Typing Speeds in Latin-Character Based Foreign Languages	Charter School of Wilmington Rose Lounsbury
B0502 Hyunji Kim	Faster Computation for Multi-Body Problems	Germantown Friends School Matt Zipin
B0503 Ian Kuo	Image Recognition using Machine Learning and Pattern Recognition	Central Bucks High School- West Mark Hayden
B0504 Darren Schachter	An Analysis of the Reliability of Various Dimming Techniques for Visible Light Communication (VLC)	High Technology High School Michael Roche
B0505 Tejas Priyadarshi	Predicting Stock Prices by Algorithmic Sentiment Analysis and Machine Learning	North Penn High School Melody Leithold

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
B0506 Gregory Welcome	Power Up	Temple University Math Science Upward Bound Mathew Scanlan
B0507 Ashish Mahuli	Artificial Neural Networks with Image Processing for Melanoma Diagnosis	Charter School of Wilmington Rose Lounsbury
B0508 Srisa Changolkar	Predictive Modeling of Cardiotoxicity Among Patients Taking Anti-Cancer Drugs	Masterman Kathleen Tait
B0509 Man Nguyen	Analysis and Optimization of Internet Traffic	Liberty High School MacLeon Pearson
B0510 Chase Reid	Discrimination Between Benign and Malignant Mammogram Masses with Deep Learning	Tatnall School Josh Gates
B0511 Michael Grantham	GeoCloud: Cloud Based Mapping and Data Collection Application	Marine Academy of Tech/Environmental Science John Wnek
B0512 Elektra Benkrid	Novel Machine Learning Approach for Somatic SNV Mutations	The Perkiomen School Melinda Irven

EARTH & SPACE SCIENCES

B0601 David Fakhraee	Terraforming Mars with Cyanobacteria	Germantown Academy Sarah Kesten
B0602 Selena Espiet	Does the Moon Affect Oceans?	Bracetti Academy Charter School A. Boglioli
B0603 William Chen	Quantifying Air Quality from Sky Color	Methacton High School Robert Helm
B0604 Alaina Castrovinci	A Comparison of Readings from Self-Made Weather Instruments to those of Professional Weather Service Networks	Easton Area High School Kathleen Sobkow
B0605 Ryan Puccino	Do Hurricanes Cool the Ocean?	Bishop Shanahan High School Laurie Puccino
B0606 Daniel Gordon	Determining a Relationship Between a Sunspot's Integrated Intensity and Magnetic Strength	Upper Darby High School Roseann Burns
B0607 Julianna Byrne	The Effect of Wave Attenuation Systems on Fauna in Barnegat Bay	Marine Academy of Tech/Environmental Science John Wnek

ENGINEERING

B0701 Sydney Iseminger	Local Drains, Oceanic Effects 2	Bishop Shanahan High School Larry Iseminger
B0702 Vikram Pandian	Reaction-Diffusion Based Portable Nucleometer System for Zika Virus Diagnosis	Parkland High School Christopher Gahman
B0703 Pradyot Yadav	Development and Implementation of a High Resolution Vernier Caliper	North Penn High School Melody Leithold
B0704 Isabelle D'Amico	Hydrologic Solar Circuit for the Acquisition of Sustainable Energy	Council Rock High School- South Matthew Ciaudelli
B0705 Pranshu Suri	A Novel Interactive, Low Cost Assistive Braille Device for Early Braille Learners	The Baldwin School Margaret Epstein
B0706 Haley Unthank	Engineering an Affordable and Energy Efficient Home	Springside Chestnut Hill Academy Scott Stein
B0707 Ashley Pennington	Investigating the Seebeck Effect at Ambient Temperatures: A Systems Approach	Charter School of Wilmington David Stover
B0708 Zachary Thé	The Effect of Hydrofoil Angle Modification on the Ratio of Lift to Drag Coefficients	Charter School of Wilmington David Stover
B0709 Dominic Adamo	Designing a Quadrotor Helicopter Hybrid	Souderton Area High School Karen Wolf

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
B0710 Zachary Thornton	Heat Sensing Robotics	Upper Darby High School Roseann Burns
B0711 Lori Zhang	Refining a Novel Device to Decrease the Risk of Vesicovaginal and Rectovaginal Fistula During Labor	High Technology High School Michael Roche
B0712 Omar Swidan	Project FiKon	Central High School Van Truong
B0713 Kunaal Chaudhari	Optimizing the Hydrophilicity of Chemical Vapor Deposition Synthesized Carbon Nanotube Microstructures	High Technology High School Michael Roche
B0714 Sarah Johnson	GPS: How to Know Where	Wise and Pure Senior High School Audrey Johnson
B0715 Anish Kaza	Filament Extruder	Moravian Academy Gabriella Dee

ENVIRONMENTAL

B0801 Yihan Wu	The Road to Sustainable Energy: A Novel Design and Implementation of Thermoelectric Systems in Asphalt Roadways	High Technology High School Michael Roche
B0802 Molly Welby	Herbicides and the Ramifications on Aquatic Ecosystems	The Perkiomen School Melinda Irven
B0803 Nick Fantini	The Effects of Water Temperature on Rainbow Trout	Malvern Preparatory School James Fry
B0804 Saira Thomas	The Effect of Urbanization on Water Quality	Charter School of Wilmington Conrad Rice
B0805 Yee Chan	Utilizing Paper Contortions to Maximize the Efficiency of Water Harvesting	Parkland High School Christopher Gahman
B0806 Victoria Hoffner	The Association Between pH and Home Lead Testing	Upper Dublin High School Joanne Lilliendahl
B0807 Zahra Husain	Desalinization and Purification of Seawater	Unionville High School Sandra Litvin
B0808 Emily Carroll	The Effect of Solar Panels on Ambient Temperature of a Closed System	Academy of Notre Dame de Namur Emily Giannantonio
B0809 Neela Talwar	Toxicity Assessment of Fracking Impacts Using a Paphnia In Vivo Bioassay	Parkland High School Christopher Gahman
B0810 Bridgid Chandler	The Effect of Nitrogen Deprivation on the Oil Yield of <i>Chorella vulgaris</i>	Academy of Notre Dame de Namur Emily Giannantonio
B0811 Joshua Carney	Are International Treaties Effective at Reducing Carbon Emissions?	Bishop Shanahan High School Elizabeth Carney
B0812 Lily Brouder	Assessing the Relationship Between <i>Escherichia coli</i> and Other Types of Bacteria in Two Watersheds: Mansquan River and Metedeconk River	Marine Academy of Tech/Environmental Science John Wnek
B0813 Grace Gong	Using Weather Balloons to Release Sulfate into the Stratosphere	Charter School of Wilmington Michael Valenti
B0814 Peter Luba	Determination of a Causal Link Between Superfund Sites and Cancer Rates	Methacton High School Robert Helm
B0815 Siddharth Gangrade	Allelopathic Inhibition of Germination by Invasive Plant <i>Alliaria petiolata</i>	Charter School of Wilmington Michael Valenti

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****MATHEMATICS**

B0901	Michelle Ampofo	Birthday Paradox	Cheltenham High School Russell Wolff
B0902	Kevin Yan	The Analysis of the Correlation Between Major Financial Indices	High Technology High School Michael Roche
B0903	Karthik Yegnesh	The Homotopy Theory of Parametrized Objects	Methacton High School Robert Helm
B0904	Elizabeth Marlin	Using Graph Theory to Analyze Genomic Data	Our Lady of Mt. Carmel Homeschool John Marlin
B0905	Amanda Yang	Prediction of a Population over Time with a Mathematical Model	Upper Dublin High School Mike Fogle
B0906	John Glasser	Predicting Domestic Violence Using an Analytical Model	Bishop Shanahan High School Diane Glasser

MEDICINE/HEALTH

B1001	Ningjing Ma	Development of an Assay to Detect CTNNB1 41-45 Hotspot Mutations	Delaware County Christian School Lisa Swieson
B1002	Roy Ghosh	Advancing Microtubule-Stabilizing Inhibitors' Influence on Multi-drug Resistance and Cancer Metastasis	Parkland High School Christopher Gahman
B1003	Lana Salloum	The Effect of Lipids on Seizure Inhibition on Mutant and Wild Type C. Elegans	Biotechnology High School Julie Nowicki
B1004	Carlie Wiseman	Detection of Bacteria in a Wound by pH Color Changing Sutures	Cherry Hill High School East Aileen Constans
B1005	Sejal Suri	Molecular Effect of BPA on Breast Cancer Cells and Fish Eggs	Methacton High School Robert Helm
B1006	Meera Garg	Study of Antidepressant Molecular Structure Leading to Safer Dosing	Charter School of Wilmington Jennifer Toner
B1007	Michele Anzabi	How Does the Percentage of Anti-Coagulants and Time Affect the Coagulation of Blood?	Villa Joseph Marie High School Ellen Leaper
B1008	Anusha Kalavacharla	Understanding the Role of mGluR Astrocytic Receptors on Neuronal Synchronization in Chicken Embryos	Collegium Charter School Murali Temburni
B1009	Benjamin Antill	A Geographic Analysis of Cancer in the Region	Souderton Area High School Karen Wolf
B1010	Divya Annamalai	The Effect of High Glucose Levels on Heart Muscle Cells	Charter School of Wilmington Kris Anania
B1011	Vidhi Raval	The Effects of Antioxidants on Heart Rates of Daphnia Magna	Biotechnology High School Julie Nowicki
B1012	Nadya Felker	The Buffering Effects of Baking Soda and Xylitol in Addition to Tooth Brushing on Tooth Decay	Villa Joseph Marie High School Jacqueline Bellerby
B1013	Maya Sitaram	Role of Astrocytic mGluRs in the Development of Synchronous Activity of Vertebrate Neurons in Culture	Charter School of Wilmington Michael Valenti
B1014	Bo Ku	The Effect of Concentrations of L-Glutathione on the Cell Health of Drosophila	Wissahickon High School Christine Brandt

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
MICROBIOLOGY			
B1101	Hamzah Shaikh	Analyzing Vacuolar Protein 26A in <i>Landoltia punctata</i>	Holmdel High School Josephine Blaha
B1102	Sreekanth Yellanki	The Efficacy of Various Bacteriophages (T4r+, X174, Lambda) on the Lysis of <i>Escherichia Coli</i>	Charter School of Wilmington Michael Katz
B1103	Gabrielle Soares	Does Honey Kill More <i>E. coli</i> Bacteria than Antibiotics?	Bethlehem Catholic High School Anthony Messina
B1104	Jiweon Moon	The Effect of FOS on the Growth of <i>Lactobacillus</i>	Wissahickon High School Christine Brandt
B1105	Daniel DiPietro	Effects of Preservatives and Emulsifiers on Probiotic Bacteria In Vitro	Biotechnology High School Julie Nowicki
B1106	Ahmed Taha Shahzad	The Efficacy of Clostridia-Mediated Bioethanol Production from Grass	Unionville High School Sandra Litvin
B1107	Sohan Shah	Effects of Bisphenols A and S on Neuronal Firing Activity in Vitro Using a Microelectrode Array	Charter School of Wilmington Rose Lounsbury
B1108	Donovan Sak	Phage Therapy for Beehives Afflicted by American Foulbrood	Central Bucks High School- West Mark Hayden
B1109	Nina Cao	Murine Exposure to Allergens Evokes an Epithelial Change	Parkland High School Christopher Gahman
B1110	Erica Wu	Sewer Electricity: A Microbial Fuel Cell Powered by Sludge	Holmdel High School Josephine Blaha
B1111	Akhil Alugupalli	The Role of <i>rspB</i> in <i>Salmonella</i> on its Resistance Against Oxidative Stress	North Penn High School Melody Leithold
B1112	Sumedha Kanthamnemi	Solution to Antibiotic Resistance Using AC Currents and Metal Ions	Parkland High School Christopher Gahman
B1113	Asher Price	Antiseptic Performance of Raw (Unpasteurized and Unfiltered) Monofloral Honey Compared with Raw Multifloral Honey	Cherry Hill High School East Aileen Constans
B1114	Monique Slowly	The Effect of Bacteriophages on Resistant Bacteria	Cheltenham High School Russell Wolff
PHYSICS			
B1201	Maanasi Gothoskar	Manipulation of a Liquid Droplet Using an Electric Field	Parkland High School Christopher Gahman
B1202	Samuel Geiser	Applications of Piezo-Cells in Alternate Energy Generation	Methacton High School Robert Helm
B1203	Christopher Ortlip	Roller Coaster Marbles	Philadelphia Academy Charter High School Joyce Zeka
B1204	Jonathan Okasinski	Mode Locking of Ultra Broadband IR Laser	North Penn High School Melody Leithold
B1205	Eric He	A Determination of a Novel Heat Zone to Optimize Absorption during Optic Fiber Splicing	High Technology High School Michael Roche
B1206	Yuqing Xie	Modelling and Experimentation of an Electromagnetic Braking System	Charter School of Wilmington David Stover
B1207	Christopher Yin	The Effect of Wavelength on the Observed Bandwidth in an Optics-based Quantum Computing Simulation	High Technology High School Michael Roche
B1208	Eric Jousson	Measuring Photon Momentum	Charter School of Wilmington David Stover

PRESENTER

B1209 Sahas Kurumety

EXHIBIT

Effectiveness of Wireless Power Transfer

SCHOOL & SPONSORMethacton High School
Robert Helm

B1210 Daniel Malloy

Drones: Delivery From Above

Malvern Preparatory School
Kevin Quinn

B1211 Harving Ortiz

Lazer Light Jell Show

Bracetti Academy Charter School
A. Boglioli**ZOOLOGY**

B1301 Molly Ehrig

Regeneration of Planaria

Bethlehem Catholic High School
Anthony Messina

B1302 James (Jinyu) Liu

Study of Food Preferences of Mealworm Beetles

Springside Chestnut Hill Academy
Scott Stein

B1303 Reshma Brown

The Effect of Calcium Ion on
Drosophila Melanogaster DevelopmentWissahickon High School
Christine Brandt

B1304 Amir Shanehsazzadeh

Electromagnetic Sensitivity of
*Drosophila melanogaster*Upper Merion High School
Peter Vreeland

B1305 Sadie Wolfarth

Biological Impacts of Sunscreen Active Ingredients
on *Gammarus* sp.Marine Academy of Tech/Environmental Science
John Wnek

B1306 Hyder Alikhan

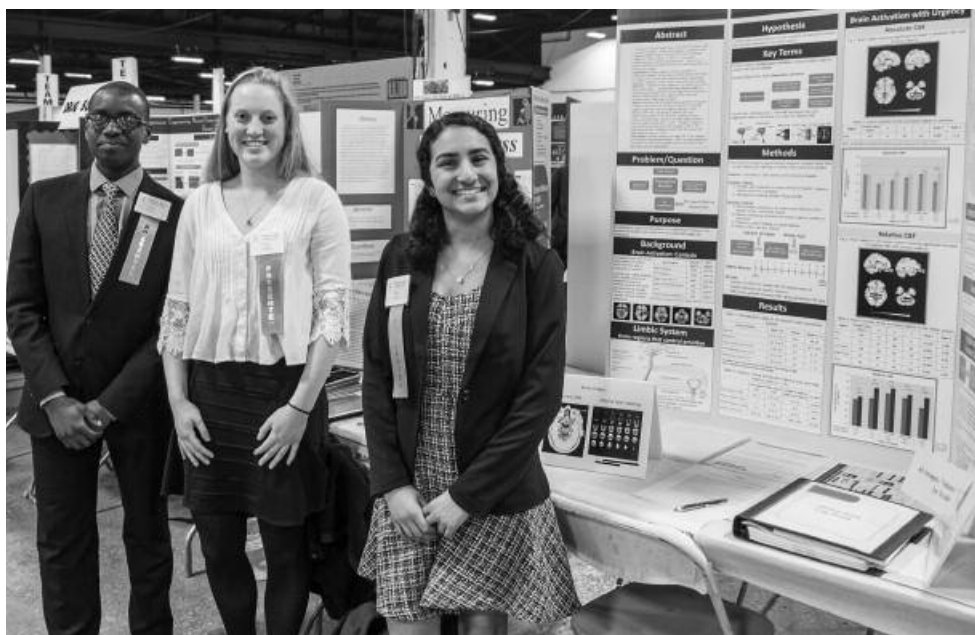
The Effect of Different Stimuli on the Aggression
of *Betta splendens* (*B. splendens*) Over TimeCherry Hill High School East
Aileen Constans

B1307 Tess Gallagher

The Directional Stability of the Sail of
S. aegyptiacus Compared to Other Vertebrate FinsSpringside Chestnut Hill Academy
Scott Stein

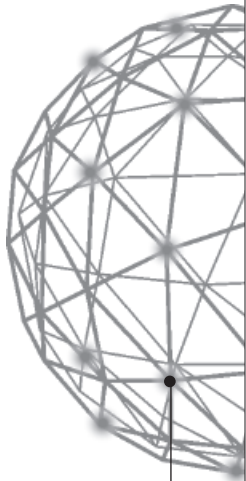
B1308 Soo-Un Jeong

Difference of Olfactory Scents in Genders

Upper Dublin High School
Joanne Lilliendahl

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BEHAVIORAL/SOCIAL SCIENCES**

C0101	Alana Pappas	The Effect of Coffee Bean Aroma on the Cognitive Function of Students	Bishop Shanahan High School Julie O'Hara
C0102	Vivian Lu	Effects of Predictability on Inattentional Blindness in Anticipation to Motion Pictures	Cherry Hill High School East Aileen Constans
C0103	Christina Santana	What Conflicting Mental Tasks Reveal About Thinking: The Stroop Effect	Science Leadership Academy Stephanie Sessa
C0104	Sarah Howton	The Effect of Visual, Auditory, and Multisensory Stimulus on Human Reaction Time	Academy of Notre Dame de Namur Emily Giannantonio
C0105	Megan Herrmann	Juggling Act: Study of Multitasking	Downingtown STEM Academy Melissa Herrmann
C0106	Landen Tennenbaum	The Effects of Freehand Drawing on Stress Levels in High School Students	Cherry Hill High School East Aileen Constans
C0107	Kaitlyn Hartman	Effect of Group Size on Conformity	Bethlehem Catholic High School Anthony Messina
C0108	Maggie Wilson	Do People Hear as Well When They are Visually Focused?	Souderton Area High School Karen Wolf
C0109	Brigit Joseph	The Growth of Fear, Part III	North Penn High School Melody Leithold
C0110	Sarah Quigley	The Correlation Between Time Restrictions and Test Anxiety	Marine Academy of Tech/ Environmental Science John Wnek
C0111	Diosmary Chavez	The Physiology of Color	Bracetti Academy Charter School A. Boglioli
C0112	Emily Szela	Age's Effect on the Reading and Memorization of Different Sentences	Academy of Notre Dame de Namur Emily Giannantonio
C0113	Kevin Lamb	Effect of Mental Priming on Information Recollection	Germantown Academy Sarah Kesten
C0114	Andrew Doyle	Melodic Medicine: How Different Genres of Music Impact Stress	Central Bucks High School-West Mark Hayden
C0115	Gabriel Cabrera	P@\$\$wOrd Drills	Temple University Math Science Upward Bound Terrence Seales
C0116	Lucia Tian	The Effect of Humanoid Robot Movement on Emotional Reactions of STEM-Focused Students	High Technology High School Michael Roche
C0117	Christine Hutchinson	Prospect Theory and Rational Choice	Parkland High School Christopher Gahman
C0118	Sophia Gray	Comparing the Effectiveness of Self-Talk Using Different Identifiers	Upper Darby High School Jessica Baton
C0119	Ellie Hulit	Analyzing Levels of Concern on Climate Change by Region in the United States	Marine Academy of Tech/ Environmental Science John Wnek
C0120	Abbielle Lindberg	Perception of Power	Cherry Hill High School East Aileen Constans



2017 10TH GRADE ENTRIES

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BIOCHEMISTRY**

C0201	Yaseen Zaky	Chemical Parameter Stability in a Recirculating Ocean Acidification System	The Marine Academy of Science and Technology Liza Baskin
C0202	Kwan Hopkins	Can Artificial Photosynthesis Be Superior to Natural Photosynthesis?	Science Leadership Academy Stephanie Sessa
C0203	Trinady Banks	Can you Separate Grape Soda using Space Sand?	Bracetti Academy Charter School A. Boglioli
C0204	Ben Solomon	The Effect of Polyols on the Lifespan of Drosophila	Souderton Area High School Karen Wolf
C0205	Vidhya Shunmugasundaram	Effects of Chemical Concentrations on Glucose Levels in the Silkworm, Bombyx mori	Cherry Hill High School East Aileen Constans
C0206	Ishaan Patel	A Formal Analysis of the Invertase Induced Hydrolysis of Sucrose	Methacton High School Robert Helm
C0207	Mia Heffernen	The Effect of Contact Solution on S. epidermis and E. coli	Academy of Notre Dame de Namur Emily Giannantonio
C0208	Divisha Singh	Enzyme Reactions	Parkland High School Christopher Gahman
C0209	Igor Tugluk	The Corollaries of 1,3,7-Trimethylxanthine and Hydroxyethane	Central High School Van Truong
C0210	Shivanand Peri	How Can Microbial Fuel Cells be Optimized?	Council Rock High School-North Terese Grateful
C0211	Shakti Ramnath	How to Make an Antioxidant Rich Smoothie	Council Rock High School-North Terese Grateful
C0212	Juliet Marchesani	The Impact of Fruit Ripeness on Sugar Content	Academy of Notre Dame de Namur Emily Giannantonio
C0213	Anjali Chakradhar	Synthesis of Boron-Based Natural Product Derivatives as Anti-Cancer Agents	High Technology High School Michael Roche
C0214	Annabelle Laughlin	Development of Aflatoxin in Peanuts Before Visible Mold	Upper Dublin High School Dawn Edelman

BOTANY

C0301	Muiyeang Lee	Decaffeinated Greens	Temple University Math Science Upward Bound Terrence Seales
C0302	Nehali Gupta	The Effect of Non-Point Hydropollutants on the Percentage of Energy Expenditure Produced by R. Sativus	Parkland High School Christopher Gahman
C0303	Seth Donnelley	The Effects of Allelopathic Compounds in Lonicera maackii on the Growth of Glycine max and Secale cereale	Chester County Donnelley Homeschool Judith Donnelley
C0304	Hendritta Panackalpurackal	The Effect of Rhizobium on the Germination of Non-legume Seeds	Academy of Notre Dame de Namur Emily Giannantonio
C0305	Ethan Hoben	The Effect of Industrial Waste on Plant Life	Emmaus High School Brent Landrum
C0306	Tiara Paul	Efficacy of Vitamin B12 on Escherichia Coli and Pseudomonas fluorescens Inhibition and Applications in Pea Plant Growth	Biotechnology High School Ann MacLean
C0307	Benjamin Seing	Semi-Hydroponic vs. Aqua-Hydroponics	Science Leadership Academy Stephanie Sessa
C0308	Tulsi Patel	Salinity Stress and Salt Tolerance of Genetically Modified Brassica napus	Methacton High School Robert Helm

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
C0309 Nelson Lin	The Effect of Phosphorus-Amended Arbuscular Mycorrhizal Growing Techniques on Brassica juncea Growth	High Technology High School Michael Roche
C0310 Ashley Sanchez	Garden Buffet	Bracetti Academy Charter School A. Boglioli
C0311 Zach Duthie	Allelopathy: The Novel Weapon of the Invasive Plant	Upper Dublin High School Megan Gallagher
C0312 Amelia Shaddinger	Finding Salt Tolerance of Plants with Growth and Germination	Upper Dublin High School Leanne Jones
C0313 Prachi Soni	The Botanical Battleground with Helianthus Annus and Ipomoea Purpurea	Parkland High School Christopher Gahman
C0314 Kelly Orr	The Effect of Growth Hormones on Pea Plants	Council Rock High School-North Terese Grateful
CHEMISTRY		
C0401 Au Ciel Hicks	The Potato Project	Chester County Hicks Homeschool Tony Hicks
C0402 Elizabeth Lieb	Which Salt Has the Greatest Heat of Solution?	Bethlehem Catholic High School Anthony Messina
C0403 Ella McCausland	Artificial Food Dye Content in Sports Drinks	Academy of Notre Dame de Namur Emily Giannantonio
C0404 Hannah Xiao	What Additive will Decrease the Melting Point of Biodiesel?	Upper Dublin High School Joanne Lilliendahl
C0405 Sriyaa Suresh	The Effect of the Ratio of Potassium Hydroxide Catalyst to Methanol on the Percentage Yield of Palmitic Acid in the Process of Biodiesel Production	Parkland High School Christopher Gahman
C0406 Emily Brennan	Creating Paints Using Household Materials	Lacey Township High School Marti Helmick
C0407 Aditi Pallod	The Effect of Porosity on the Survival of Mesenchymal Stem Cells in Hydrogel Scaffolds	Parkland High School Christopher Gahman
C0408 Jonathan Cheng	Characterization and Preservation of Cell-Free DNA in Urine	Methacton High School Robert Helm
C0409 Hailey Carskaddan	Glucosamine and Joint Pain	Lacey Township High School Alexandra York
C0410 Lauren Burton	Prevention of Moisture Loss	Temple University Math Science Upward Bound Mathew Scanlan
C0411 Kate Killian	A Study of the Effects of Cleaning Agents on Luminol Test Accuracy	Marine Academy of Tech/Environmental Science John Wnek
C0412 Komal Patel	The Mpemba Effect	Northeast High School James Finley
C0413 Anna Dewey	Utilizing Used Coffee Grounds and Bioelastometric Composite Foam to Remove Metals from Water	Academy of Notre Dame de Namur Emily Giannantonio
C0414 Mary Kate Trevisan	Absorbance of Radiant Energy of Different Colors and Materials	Academy of Notre Dame de Namur Emily Giannantonio
C0415 Michael Kates	Isolation and Characterization of Components in Green Spinach Leaves	Philadelphia Academy Charter High School Joyce Zeka
C0416 Madison Bourne	How Much Vitamin C is in the Fruit and Vegetables We Consume Daily?	Woodstown High School - Pilesgrove High School Chris Rickard
C0417 Gaea Lawton	Traces of Explosives in Soil: Implication for Using Nanoparticles as a Novel Footwear Screening Technique	PA Leadership Charter School Sheila Romine

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
COMPUTER			
C0501	Matt Higgins	Relay Logic In Use	Woodstown High School - Pilesgrove High School Chris Rickard
C0502	Frank D'Agostino	Creating a Novel Navigation Algorithm to Improve Commercial Robotic Area Coverage	Marine Academy of Tech/Environmental Science John Wnek
C0503	Patricia Yao	Solving Vehicle Routing Problem Using an Optimized Hierarchical Algorithm	Parkland High School Christopher Gahman
C0504	Ethan Moyer	Synthesizing DNA Using Endonucleases and Restriction Digest	Souderton Area High School Karen Wolf
C0505	Anne Jeanette Ardito	Computer Engineering: Why are My Video Games so Slow?	Villa Joseph Marie High School John Gentile
C0506	Cyrus Majd	Finding Vulnerabilities in the Oracle VM Virtualbox Hypervisor Specific to CPU Attacks, RAM Attacks, and Storage Attacks	Holmdel High School Josephine Blaha
C0507	MaryElizabeth Greeley	Web Design for the Visually Impaired	Central High School Van Truong
C0508	Nathanael Costa	A Time and Cost Saving Application for Payment in Restaurants	Carriagebrook Academy Roy Costa
C0509	Samuel Bushra	Analysis of Performance and Cost Among Three AMD Accelerated-Processing-Units With and Without Discrete Graphics Card	Bushra Homeschool Joseph Bushra
C0510	Jason Qiu	A Patient-Centric Approach to Mitigating AD Progression	Methacton High School Robert Helm
C0511	Bridget O'Donnell	Security Breach: How Safe is Your Password?	Bishop Shanahan High School Kelly O'Donnell
C0512	Kaleb Sherrill	Security of Picture Passwords	Upper Darby High School Roseann Burns
C0513	Stefan Obradovic	Characterization of Energy Efficiency in Residential Homes	Upper Dublin High School Dawn Edelman
C0514	Rhea Kadakla	Developing a Brain-Computer Interface Application	Parkland High School Christopher Gahman

EARTH/SPACE SCIENCES

C0601	Hannah Lewis	Solution to Light Pollution: Effect of Material on Containing Artificial Light	Souderton Area High School Karen Wolf
C0602	Terence Devlin	Does the Mass of a Pulsar Affect the Velocity of it's Spin?	Central Bucks High School-West Mark Hayden
C0603	Sanjit Shelukar	The Effect of Nanoparticles on the Amount of Steam Generated	Wissahickon High School Christine Brandt
C0604	John Rybnik	Comparing the Strength of Earthquakes in Different Substrates	Upper Darby High School Roseann Burns
C0605	Peter Decker	Finding Ratio: Mean Energy Released to Size of Neutron Star	Wissahickon High School Christine Brandt

ENGINEERING

C0701	Malaika Shah	Underwater Robot	Easton Area High School Penny Diehl
C0702	Aparna Dev	The Effect of Blade Number on Energy Produced in Windmills	Council Rock High School-North Terese Grateful
C0703	Michael Gomba	Levitation vs. Earthquakes	Bishop Shanahan High School Melanie Gomba

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
C0704 Holly Pelsis	Building the Most Efficient Bridge	Bethlehem Catholic High School Anthony Messina
C0705 Ethan Cody	3D Printed Exoskeleton Hand	Germantown Academy Sarah Kesten
C0706 Gabriela Valladares	Innovating Field Hockey Goalkeeping Equipment	Cherry Hill High School East Aileen Constans
C0707 Vince Tran	Utilizing the Magnus Effect with a Flettner Rotor	Upper Darby High School Roseann Burns
C0708 Harsha Santhanam	Ultrasonic Guided Waves for Detecting Defects in Pipelines	Methacton High School Robert Helm
C0709 Ashish D'Souza	Developing a Simpler Method for Drawing Perspective Projections	Polytech High School Melvin D'Souza
C0710 Jason Won	iPhone Fruit X-Ray	Upper Dublin High School Dawn Edelman
C0711 Sophia Delia	Simple Solar: Engineering a Model of Portable Solar Panel	Woodstown High School - Pilesgrove High School Carol Cipolla
C0712 Marshall Byrd	Water: Fueling the Future	Woodstown High School - Pilesgrove High School Carol Cipolla
C0713 Sathya Edamadaka	Virtually Perfect Photovoltaic Cells: A Novel and Adaptive Approach to Modeling Quantum Dot templates Optimized for Varied Light Conditions	High Technology High School Michael Roche
C0714 Rishi Salwi	The Effect of an Electromagnetic Levitation System on the Stability of a Model Statue	High Technology High School Michael Roche
C0715 Sofia Suero	The Movement and Engineering of an Artificial Hand	Academy of Notre Dame de Namur Emily Giannantonio
C0716 Adam Morys	Joint Tracking	Malvern Preparatory School Agnese Abate
C0717 Isha Mohapatra	Development of an Optimum Insulating Brick	Moravian Academy Gabriella Dee

ENVIRONMENTAL

C0801 Samantha Midili	Soil Savers: Which Plants Can Prevent Soil Erosion?	Woodstown High School - Pilesgrove High School Carol Cipolla
C0802 Samantha McGarvey	Measuring the Rate of Decomposition of Different Materials	Academy of Notre Dame de Namur Emily Giannantonio
C0803 Ayomikun Gbadamosi	Flocculation Caused by Elevated Concentration of Iron in New Jersey Pine Barrens Soil	Marine Academy of Tech/Environmental Science John Wnek
C0804 Connie Liu	The Effect of Different Fertilizers on Cyanobacterial Growth	Upper Dublin High School Joanne Lilliendahl
C0805 Taylor Smith	Pesticides and Plants	Easton Area High School Penny Diehl
C0806 Urjeet Deshmukh	Calculating Water Toxicity With a Synthetic Chart and Differentiating pH Levels with Daphnia Magna	Parkland High School Christopher Gahman
C0807 Sam Fisher	Cape Cod Erosion - Man vs. Nature	Unionville High School Dr. Doug Vallette
C0808 Melissa Hernandez	Hydropower	Bridgeton High School Claudia Angle
C0809 Erin Byrd	Testing the Toxicity of Water Using Daphnia magna	Academy of Notre Dame de Namur Emily Giannantonio

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
C0810 Kacy Liang	The Effect of Ocean Acidification on Artemia salina	Council Rock High School-North Terese Grateful
C0811 Anna Grace Coyne	Ferrofluids Effect on Oil Spills	Academy of Notre Dame de Namur Emily Giannantonio
C0812 McKenzie Smith	Farming Methods Up Against The Elements	Woodstown High School - Pilesgrove High School Chris Rickard
C0813 Rose Emin	Strengths and Alternative Types of Homemade Paper Using Different Plants	Easton Area High School Penny Diehl
C0814 Elizabeth Stifel	Are UV Treatments Equally Effective in Destroying E. coli from Water Samples in Madagascar?	Moravian Academy Gabriella Dee
C0815 Victoria Vought	Assessment of the Impact of Common Environmental Chemicals BPA and BPS on the Health of Lumbriculus variegatus	High Technology High School Michael Roche
C0816 Liam Safran	Cleaning Oil Spills with Magnetism	Council Rock High School-North Terese Grateful
C0817 Davron Borhan	Exploring the Effect of Acid Rain on Dissolved Oxygen Concentrations	Methacton High School Robert Helm
C0818 Amy Ouyang	Making Bioplastics More Durable	Methacton High School Robert Helm
C0819 Bella Yedman	An Analysis of Storm Drain Pump Stations Along the Barnegat Bay	Marine Academy of Tech/Environmental Science John Wnek

MATHEMATICS

C0901 Maya Senescu	Hi-Lo Strategies! Make the Odds of Winning in Your Favor	Downingtown STEM Academy Karla Senescu
C0902 Margaret Quirk	Using Statistics to Analyze the Accuracy of Catapults	Academy of Notre Dame de Namur Emily Giannantonio
C0903 Eric Chai	Creating a Rating Algorithm for Bridge that Accurately Predicts Tournament Performance	High Technology High School Michael Roche
C0904 Claudia Schreier	A Predictive Model for Emulsion Droplet Dispersion and Uniformity	Marine Academy of Tech/ Environmental Science John Wnek
C0905 Baiting Zhu	A Study of Osteoporosis in U.S. Senior Female Population	Westtown School Leslie Barr
C0906 Melanie Kaminsky	Zombie Fever: An Epidemic Model	George Washington High School Anita Abraham
C0907 Gillian Porter	Phi-nding Musical Gold: Analysis of Phi's Role in the Structure of Music Across Multiple Genres	Bishop Shanahan High School Pamela Porter
C0908 Walker Anderson	An Algorithm For Solving Lakes Puzzles	Central Bucks High School-West Mark Hayden

MEDICINE/HEALTH

C1001 Julienne Chaqour	Utilization of CRISPR/Cas9 to Knock Down Inflammatory and Angiogenic microRNAs in Endothelial Cells	High Technology High School Michael Roche
C1002 Christian Ransome	Triclosan Sounds Fishy	Carver High School A. Basu
C1003 Aakash Pillai	Curcumin: Using a Natural COX-2 Inhibitor to Fight Arthritis	Moorestown High School Sean Watson
C1004 Anna Szeto	Short-Term Effects of Smartphone Usage on Human Vision	Council Rock High School- North Terese Grateful

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
C1005 Nina Ciocca	Vital Signs in Adolescent Athletes in Various Sports	Academy of Notre Dame de Namur Emily Giannantonio
C1006 Jack Campanella	The Effect of Pineapple Juice, Papaya Juice, and Kiwi Juice on Degrading Proteins as Measured by DNA Purity	Biotechnology High School Ann MacLean
C1007 Angelica Rivera	Pop, Lock, and Drop It	Bracetti Academy Charter School A. Boglioli
C1008 Cindi Reyes	What Are We Drinking?	Bridgeton High School Claudia Angle
C1009 Allison Yang	G-quadruplex Sequence Recognition in the Androgen Promoter Region	North Penn High School Melody Leithold
C1010 Puja Samant	Harnessing the Power of PCSK-9 Inhibitors and Statins to Lower Cholesterol	North Penn High School Melody Leithold
C1011 Tegan Horan	The Use of Mechanics to Recreate a Human Hand	Central Bucks High School-West Mark Hayden
C1012 Ester Teper	Boosting the Autoimmune System with Household Herbs and Spices	Biotechnology High School Ann MacLean
C1013 Adam Zhang	Cell-free Urine DNA for Cancer Liquid Biopsy	Methacton High School Robert Helm
C1014 Caitlyn Hayes	The Effects of Various Technological Devices on Teens' Sleep	Academy of Notre Dame de Namur Emily Giannantonio
C1015 Sophia Skorup	Examination of the Efficacy of Commercial UV-C Disinfection Systems	Academy of Notre Dame de Namur Emily Giannantonio

MICROBIOLOGY

C1101 Kenaizha Ezell	Can Aloe Vera Save Your Berries from Mold?	Bracetti Academy Charter School A. Boglioli
C1102 Judy Zhong	The Host Range Specificity of Bacteriophage T4r	Upper Dublin High School Joanne Lilliendahl
C1103 Emily Liu	Comparing the Antimicrobial Effect of Pine (<i>Pinus sylvestris</i>) and Spruce (<i>Picea mariana</i>) Tree Needle Essential Oils on <i>E. coli</i> K12 in Vitro	High Technology High School Michael Roche
C1104 Claire Sheehan	The Effect of Grapefruit on Antibiotics	Academy of Notre Dame de Namur Emily Giannantonio
C1105 Sydney Breslin	Treating <i>E. Cloacae</i> Infections Without Harming Healthy Gut Microflora	Dock Mennonite Academy High School Kellena Smith
C1106 Allison Chang	The Effect of UV Light on Yeast Fermentation	Upper Dublin High School Leanne Jones
C1107 Vivek Adury	Testing the Bactericidal Capability of Different Benzoin Peroxide Medications	Liberty High School MacLeon Pearson
C1108 Shichen Nie	Treating HBV by GANAB and MOGs Knockouts Using Genetic Editing	Central Bucks High School-East Pamella Eggleston
C1109 Isabella Briseno	Do Varying Scents of Antibacterial Gel Have Different Levels of Effectiveness on Bacteria?	Woodstown High School - Pilesgrove High School Carol Cipolla
C1110 Nathan Ocampo	The Effect of UV Lights Bacteria	Central Bucks High School-West Mark Hayden
C1111 Priyanka Hanumaihgar	Novel Assay to Identify Response of DNA Repair in Mutated <i>Saccharomyces Cerevisiae</i>	Parkland High School Christopher Gahman
C1112 Sapna Patel	Medical Effects on <i>Daphnia</i>	Northeast High School James Finley

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
C1113	Siobhan Slattery	Antibacterial Effects of Honey	Academy of Notre Dame de Namur Emily Giannantonio
C1114	Samuel Mueller	Effect of Caffeine Content of <i>Coffea arabica</i> upon the Inhibition of <i>Staphylococcus epidermidis</i> and <i>Escherichia coli</i>	Biotechnology High School Ann MacLean

PHYSICS

C1201	Clare English	Will the Viscosity of Motor Oil Change as the Temperature Rises?	Woodstown High School - Piles Grove High School Carol Cipolla
C1202	Omar Kenawy	Temperature's Effect on a Ball's Coefficient of Restitution	Easton Area High School Penny Diehl
C1203	Joseph Kurtz	The Transition of Newtonian Fluids to Non-Newtonian Fluids	Bethlehem Catholic High School Anthony Messina
C1204	Steven Vorona	The Application of Electrodynamic Compatibility in the Optimization of Directionally Determinant Nano-Scale Electronics	High Technology High School Michael Roche
C1205	Christopher Masuda	Investigation of Non-Newtonian Fluid Interactions	Upper Darby High School Roseann Burns
C1206	Julianna Evans	Does the Surface Finish of an Object Have an Effect on the Amount of Force it Takes to Move?	Woodstown High School - Piles Grove High School Carol Cipolla
C1207	Dajah Green	Race Your Marbles to Discover Liquid's Viscosity	Frankford High School Lauren Bernhardt
C1208	Emma Butrym	The Effect of Angle of High Beam Light on Transmittance Through a Polarized Windshield	High Technology High School Michael Roche
C1209	Grace Knauss	Efficiency of Conductivity	Parkland High School Christopher Gahman
C1210	Madison Cummons	Observing the Effect of Matter and Density on Sound Waves	Woodstown High School - Piles Grove High School Carol Cipolla
C1211	Elizabeth Berzin	Modeling Electromagnetic Cloaking Devices	Lower Moreland High School Richard Becker
C1212	Raul Reyes	Absorption of Radiant Energy by Different Colors	Bridgeton High School Claudia Angle

ZOOLOGY

C1301	Penny Demetriades	Determining the Prevalence of <i>Pleurogonius malaclemys</i> Parasitic Infection of <i>Ilyanassa obsoleta</i> in Barnegat Bay, New Jersey	Marine Academy of Tech/Environmental Science John Wnek
C1302	Eileen Shelton	Symbol Recognition in Horses: Can Horses Correlate Symbols with Consequences?	Academy of Notre Dame de Namur Emily Giannantonio
C1303	Ashleigh Blake	Does Shoulder Angle Affect the Length of a Horse's Stride?	Woodstown High School - Piles Grove High School Chris Rickard
C1304	Catherine Raspanti	Canine Brain Lateralization, as Evidenced by a Right or Left Paw Preference, Correlates to Canine Temperament: Fact or Fiction?	Girard Academic Music Program Jared Ruddick
C1305	Rose McDonald	The Effect of Nanosilver on Pond Life	Academy of Notre Dame de Namur Emily Giannantonio
C1306	Joselyn Fontanez	<i>Daphnia Magna</i>	Bracetti Academy Charter School A. Boglioli
C1307	Vanessa McCole	Magnetizing Life Jackets to Repel Sharks	Central Bucks High School- West Mark Hayden
C1308	Brynne DiDonato	Effect of Vitamin D and Probiotics on Neurons of <i>C. elegans</i>	Germantown Academy Sarah Kesten

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BEHAVIORAL/SOCIAL SCIENCES**

D0101	Lauren Orton	Does Exercise Affect Your Memory?	Salem County Vocational Technical School Kristen Redkoles Polk
D0102	Ashley Waples	Effectiveness of Simple Methods of Stress Relief	Upper Darby High School Jessica Baton
D0103	Caroline Koberg	Waking Up: Light vs. Dark	Unionville High School Sandra Litvin
D0104	Lindsay Goldschmidt	The Impact of Rocking in a Rocking Chair on Memory	Academy of Notre Dame de Namur Emily Giannantonio
D0105	Mattie Rieck	Do the Eyes Have It?	Salem County Vocational Technical School Kristen Redkoles Polk
D0106	Baraka Osborne	Which Activity Affects People the Most in a Positive Way?	STEM Up Rachael Parris
D0107	Eddie Biddle	Does Genre of Music Affect Accuracy of Free Throw Shooting?	Salem County Vocational Technical School Kristen Redkoles Polk
D0108	Rehan Devaravar	Multitasking's Affect on Memory	Lenape Middle School Jennifer Yeager
D0109	Jessica Wang	Male vs. Female: Multitasking with Phones	Council Rock High School-South Matthew Ciaudelli
D0110	Justice Hammer	It's Not Easy Being Green	Vineland HS AMSA Vicki Yeager

BIOCHEMISTRY

D0201	Ashmitha Sivakumar	DNA Extraction & Efficacy Assessment of DNA Decontamination Methods	Methacton High School Robert Helm
D0202	Isha Shah	Nutrition of Full Fat Foods vs. Reduced Fat Foods	Methacton High School Robert Helm
D0203	Vidhyasai Annem	The Effect of Various Neurotransmitters on the Mortality and Chemotaxis of Caenorhabditis Elegans	Parkland High School Christopher Gahman
D0204	Brooke Khairzada	Sweetology	Salem County Vocational Technical School Kristen Redkoles Polk
D0205	TJ Nguyen	Feasibility Study: Ethanol Production	Cherry Hill High School West Brian Grillo
D0206	Annie Zhang	Comparing the Amount of Ethanol Produced by Various Starch Plants	Methacton High School Robert Helm
D0207	Tara Czekner	Can Individual Specimens be Identified When Burned to an Unrecognizable State?	Villa Joseph Marie High School Kathleen Sundquist
D0208	Emily Farrell	Apples vs. Household Chemicals	Woodstown High School - Pilesgrove High School Stephen Ordog
D0209	Jared Carr	Skunk Attack!	Woodstown High School - Pilesgrove High School Jennifer Sorbello

2017 9TH GRADE ENTRIES

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BOTANY**

D0301	Ava Wilson	Which Nitrogen Based Fertilizer Works Best?	Salem County Vocational Technical School Kristen Redkoles Polk
D0302	Natalie Scardino	pH Growing Plants	Woodstown High School - Pilesgrove High School Jennifer Sorbello
D0303	Isabelle Anzabi	Effects of Irradiation on Seed Germination: Rad Radishes	Villa Joseph Marie High School Nicholas Zlupko
D0304	Andrew Beck	The Effect of Herbicides on Clover and the Barnegat Bay	Marine Academy of Tech/Environmental Science John Wnek
D0305	Colin Christoff	Supercharged Sunflowers	Woodstown High School - Pilesgrove High School Michelle Williams
D0306	Janice Chen	The Effects of the Hydroponic System vs. Traditional on the Growth Rate of Peas	Holicong Middle School Robert Meletti
D0307	Karen Li	Effects of CO2 and Sunlight on the Rate of Algal Growth	Methacton High School Robert Helm

CHEMISTRY

D0401	Brooke Shapiro	The Effect of the Ripeness of a Banana on the Amount of Sugar in the Fruit	Wissahickon High School Mary Jo Burgoyne
D0402	Katherine Martinez	The Effect of Ion Size on Surface Tension	Bethlehem Catholic High School Anthony Messina
D0403	Kevin London	Does Life Straw Suck?	Vineland HS AMSA Vicki Yeager
D0404	Molly Tyler	Popping Popcorn: Does Moisture Matter?	Woodstown High School - Pilesgrove High School Michelle Williams
D0405	Darrian Banks	The Effectiveness of Sodium Fluoride on Teeth	Salem County Vocational Technical School Kristen Redkoles Polk
D0406	Andrew Yang	Protein Solubility Based on Water Temperature	Holicong Middle School Robert Meletti
D0407	Gemma Lopena	Pantry Pastes	Holicong Middle School Carrie Bannon
D0408	Katie Sapozhnikov	The Effect of Chlorinated Water on the Strength of Hair	Wissahickon High School Mary Jo Burgoyne
D0409	Jessica Melo	What's in That Doggone Food?	Vineland HS AMSA Vicki Yeager
D0410	Maxine Adams	Analysis of the pH of Commercial Bottled Water	Unionville High School Sandra Litvin
D0411	Ling Xu	Effects of Various Climates and Storage Methods on Battery Efficiency	Holicong Middle School Carrie Bannon
D0412	Franklin She	The Effects of Popular Cooking Methods on Vitamin C in Food	Upper Dublin High School David Price

COMPUTER

D0501	Ryan Young	What Computer Language is Best at Running Complex Equations?	Council Rock High School-North Terese Grateful
D0502	Marius Vava	Concussion Tracking with a Smartphone	Germantown Academy Sarah Kesten
D0503	Arjun Vedantham	TensorFlow in Medicine: Detecting Retinopathy with Machine Learning	Parkland High School Christopher Gahman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
D0504 Ayush Shah	Coding Traffic Lights	Council Rock High School-North Terese Grateful
D0505 Neil Deshmukh	SCIN: A Smart Adaptive Machine Learning Application to Detect and Diagnose Human Medical Conditions and Plant Diseases and Disorders	Moravian Academy Gabriella Dee
D0506 Sofiya Lysenko	Designing Computational Biological Circuits to Facilitate Cancer Treatment	Abington Junior High School Ed Steinhardt
D0507 Will Knipe	Facial Recognition Home Security Using Convolutional Neural Networks	Unionville High School Tim Knipe
D0508 Briana Malik	Developing an Artificial Intelligence System to Read MRI Images, X-rays and CT-scans Faster and More Accurately than Traditional Radiologists	Parkland High School Christopher Gahman
D0509 Jason Yan	Optimal Keyboard Layout for Texting on Phones	High Technology High School Michael Roche
D0510 Paul Ringenbach	Gender Recognition Through Voice Analysis	Bishop Shanahan High School Daniel Ringenbach
D0511 Tiffany Zhong	Cloud Computing Performance	Germantown Academy Sarah Kesten

EARTH/SPACE SCIENCES

D0601 Owen Regehly	The Effects of Varying Wind Speeds on Dune Height and Accretion in Reinforced and Natural Dune Systems	Marine Academy of Tech/Environmental Science John Wnek
D0602 Lea Burton	How Do Soil Nutrients in Natural vs. Replenished Dunes Affect the Growth of Vegetation?	Marine Academy of Tech/Environmental Science Jason Kelsey
D0603 Jay Patel	Comparison of Different Energy Sources for Mars Travel and Exploration	Youth Achievers Committee Sherita Singleton
D0604 Colby Kantner	Investigation of Double Ridge Formations on Europa	Upper Darby High School Roseann Burns
D0605 Swetha Sampath-Kumar	Nothing Can Hold Me Down	Pennbrook Middle School Carol Ward
D0606 Jackson Weiler	Effects of Runoff Pollution on Aquatic Plants	Council Rock High School-North Terese Grateful
D0607 Amy Fullington	The Impact Emissions from Exposed Sediment Have on the Atmospheric Carbon Dioxide Levels	Marine Academy of Tech/Environmental Science John Wnek
D0608 Doreen Valmyr	Landslides: What Causes Rocks to Slide Down a Slope?	Central High School Van Truong

ENGINEERING

D0701 Evan Wang	Thermal Diffusivity Measurement of Graphene-based Foils by the Flash Method	Unionville High School Heng Wang
D0702 Hannah Patrignani	Spraying For Cooling, Cooling For Safety	Vineland HS AMSA Vicki Yeager
D0703 Rajan Patel	Safe Ride	Council Rock High School-North Terese Grateful
D0704 Jeremy Rasmussen	Are Dust Bunnies Extinct?	Vineland HS AMSA Vicki Yeager
D0705 Charlie Dang	The Effect of Weight on Multiple Bridge Designs	Philadelphia Academy Charter High School Joyce Zeka
D0706 Joe Wilson	Best Bridge Design Continued	Salem County Vocational Technical School Kristen Redkoles Polk

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
D0707 Alexandra Worrall	How can Piezoelectric Machines be Applied to Everyday Life?	Lenape Middle School Jennifer Yeager
D0708 Punya Bhasin	The Simulation of an Artificial Pancreas Using Bioengineering	Parkland High School Christopher Gahman
D0709 Mark Schadt	Which Type of Calorimeter Works Best for Combustion Analysis?	Bethlehem Catholic High School Anthony Messina
D0710 Farid Shahid	Developing an Optimal Unconventional Wind Turbine	Parkland High School Christopher Gahman
D0711 Cecilia Quirk	The Efficacy of Different Seawalls in Reducing the Impact of Tsunamis	Academy of Notre Dame de Namur Emily Giannantonio
D0712 Owen Chouinard	Egg-stra Strong?	Bishop Shanahan High School Christine Chouinard
D0713 Tiffany Fang	Road Safety Index: Traffic Safety Modeling, Evaluation, and Visualization	High Technology High School Michael Roche
D0714 Alex Yan	Desalinization through Electricity Generated by Bicycle Generator	Germantown Academy Sarah Kesten
D0715 Riley Brenan	Water Pressure's Effect on Erosion of Lollipops	Academy of Notre Dame de Namur Emily Giannantonio

ENVIRONMENTAL

D0801 Ryan Lim	The Effectiveness of Natural Water Filters to Clean Water	Upper Dublin High School Dawn Edelman
D0802 Arnav Goel	Water Quality of Natural Sources in the Burlington and Camden County Area	Cherry Hill High School East Aileen Constans
D0803 Anya Pant	The Impact of Different Wavelengths of Incident Light on Photovoltaic Output	Parkland High School Christopher Gahman
D0804 Sophi Schneider	Finding Optimum Fertilizer to Decrease Fertilizer Runoff	Upper Dublin High School David Price
D0805 Isabella Swartz	Nutrient Sources for Aquatic Plants in the Bradford Reservoir	Tamanend Middle School Mark Hayden
D0806 Ariel Baiano	How do Changes in Physical Parameters Affect Photosynthesizing Rates in Zooxanthellae?	Marine Academy of Tech/Environmental Science Jason Kelsey
D0807 Shreya Patil	Bioplastics: Are They Useful?	Methacton High School Robert Helm
D0808 Annalisa Quinn	Flush or Bust	Central High School Robert Herbstritt

MATHEMATICS

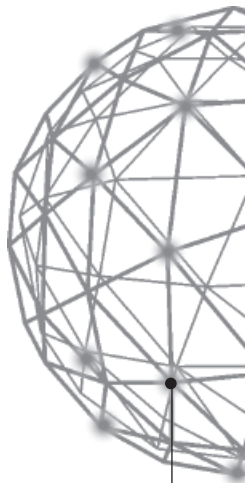
D0901 Brady Nichols	Accuracy of a Self-Made Rocket Simulation Program	Marine Academy of Tech/Environmental Science Jason Kelsey
D0902 Annie Cheng	The Correlation Between CMEs and the Sunspot Cycle	Upper Dublin High School Dawn Edelman
D0903 Jhanvi Dasaka	Math in Music: Exploring Patterns in Bach	Council Rock High School- South Matthew Ciaudelli
D0904 Ethan Baker	Vectors in Multiple Dimensions	Pennbrook Middle School Carol Ward
D0905 Stefania Schoen	Fractals, Fibonacci Sequences and the Golden Ratio in Music and Art	Emmaus High School Brent Landrum

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
MEDICINE/HEALTH		
D1001	Defne Alpdogan The Effect of Different Concentrations of Ascorbic Acid on Cancer Cell Lines	Cherry Hill High School East Aileen Constans
D1002	Ben Melle Modeling the Cardiovascular	Salem County Vocational Technical School Kristen Redkoles Polk
D1003	Hanna Kerest The Affect Soda and Juice Have on Teeth	Holicong Middle School Carrie Bannon
D1004	Paige Willard How Greasy Are Your Potato Chips?	Woodstown High School - Pilesgrove High School Stephen Ordog
D1005	Rhea Malhotra The Selective Regeneration and Isolation of Dopaminergic Neuronal Stem Cells	Moravian Academy Gabriella Dee
D1006	Lauren Widergren Compared Durability of Suturing Techniques	Bishop Shanahan High School Victoria Widergren
D1007	Lauren Bradley Brush Away the Decay	Bishop Shanahan High School Cheryl Bradley
D1008	Erica Stover Can You Hear Me? Earbuds vs. Everyday Sounds	Souderton Area High School Karen Wolf
D1009	Talia Priore Diet and pH	Woodstown High School - Pilesgrove High School Jennifer Sorbello
D1010	Arushi Tiwari Applying Plant Derived Secondary Metabolites for the Reversal of MDR in Fungi	Methacton High School Robert Helm
D1011	Claire Tse Harnessing Anti-Inflammatory and Immunoregulatory Potentials from Nature	Methacton High School Robert Helm
D1012	Maya Paul The Time it Takes for Different Pill Types to Dissolve	Parkland High School Christopher Gahman

MICROBIOLOGY

D1101	Gowtham Pichaiyan The Effect of Sand Filters on E Coli	Council Rock High School-North Terese Grateful
D1102	Sahas Veera The Antibacterial Effects of Graphene Oxide Nanosheets on E. coli and S. epidermidis in vitro	Parkland High School Christopher Gahman
D1103	Isabella Onofrietti The Effects of Xylitol and Cinnamon Oil on the Growth of Streptococcus Mutans	Toms River High School North Christine Girtain
D1104	Brianna Smith The Effect of Acne Medicine on Bacteria	Cheltenham High School Russell Wolff
D1105	Nicholas Hall Effectiveness of Dog Saliva in Inhibiting Bacterial Growth	Unionville High School Sandra Litvin
D1106	Justin Stacknick Oral Microbiology vs. Sensodyne® Toothpaste	Salem County Vocational Technical School Kristen Redkoles Polk
D1107	Isabelle Beatus The Effects of Different Herbicide on Microbial Life	Cheltenham High School Russell Wolff
D1108	Maya Parekh The Effect of an Herbicide on the Growth of Bacteria	Parkland High School Christopher Gahman
D1109	Kevin Guo Using HER2 Antibody to Increase Efficiency of Gold Nanoparticles in Treating Breast Cancer	Great Valley High School Bonnie Wu
D1110	Joshua Johnson Bread Mold Growth	Salem County Vocational Technical School Kristen Redkoles Polk
D1111	Megan Scanlon What Are You Putting on Your Face?	Philadelphia Academy Charter High School Joyce Zeka

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
PHYSICS		
D1201 Christopher Dwyer	The Effect of Water Purity on Ice Spikes	Upper Darby High School Roseann Burns
D1202 Arielle Toutou	The Efficiency of Recycled Materials as Insulation	Marine Academy of Tech/Environmental Science Jason Kelsey
D1203 Katherine O'Connor	The Effect of Color on the Absorption of Radiant Energy	Methacton High School Robert Helm
D1204 Harper Chisari	Does a Vacuum Insulated Window Insulate Better than Convention Windows?	Parkland High School Christopher Gahman
D1205 Kanishk Nazareth	The Linear Magnetic Accelerator	Lenape Middle School Jennifer Yeager
D1206 Ankit Kapadia	Scoring Under Pressure	Vineland HS AMSA Vicki Yeager
D1207 Luke Finley	The Effect of Composition on Rebound	Upper Darby High School Roseann Burns
D1208 Sharvil Misra	Efficient Propeller Design	Council Rock High School- North Terese Grateful
D1209 David Palko	Effects of Hydraulic Pressure on Different Joint Structures	Methacton High School Robert Helm
D1210 Catherine Giuliani	Magnets and Cell Phones: What is a Safe Distance?	Vineland HS AMSA Vicki Yeager
D1211 Jonathan Augustin	Measuring the Speed of 'Light' with a Microwave Oven	Northeast High School James Finley
D1212 Jack Durkin	Impact Test on Shin Guards	Pennbrook Middle School Carol Ward
ZOOLOGY		
D1301 Emily Praul	How Cats Respond to Bird Sounds	Philadelphia Academy Charter High School Joyce Zeka
D1302 Emma Riley	The Directional Preference of Hatchling Malaclemys Terrapin Terrapins at Barnegat Bay, NJ	Marine Academy of Tech/Environmental Science John Wnek
D1303 Atara Saunders	The Effect of Resveratrol on Alzheimer's Disease Model	Cheltenham High School Russell Wolff
D1304 Lourdes De La Rosa	Strong Smell and Food Preference of Cats	Salem County Vocational Technical School Kristen Redkoles Polk
D1305 Julia Kuzan	The Memory Span of the Apis mellifera carnica	Marine Academy of Tech/Environmental Science John Wnek
D1306 Olivia Monahan	Fish and Elodea	Woodstown High School - Pilesgrove High School Jennifer Sorbello
D1307 Aditya Gunturi	The Antibacterial Effects of Allicin and Other Compounds Present in Spices on L. Acidophilus	Holicong Middle School Carrie Bannon
D1308 Matt Sandifer	The Effect of Artificial Sweeteners on Drosophila suzukii	Germantown Academy Sarah Kesten
D1309 Cassidy Poon	Investigation into the Structure and Hydrophobicity of Butterfly Wings	Charter School of Wilmington Gerald Poirier
D1310 Joseph Dougherty	Survival Rates of Brine Shrimp in Adverse pHs	Bishop Shanahan High School Allison Dougherty



**2017 TEAM PROJECTS
9TH - 12TH GRADES**

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
T1401 Ashley Clark Rachel Watson	Classy Cleaning Contraption	Youth Achievers Committee Sherita Singleton
T1402 Cambria Luschen Katerina Connelly Julianna Anderson	Pasta Towers	Pennsville High School Jennifer DuBarry-Paul
T1403 Fei Phua Winston Lei Andrew Colbert	Effect of Varying Heat Shock Temperatures on Transformation Efficiency of E.coli	Biotechnology High School Ann MacLean
T1404 Katelyn Duell Gabriela Rosales	Luminol vs. Temperature Change	Salem County Vocational Technical School Kristen Redkoles Polk
T1405 Claudia Eder Mikayla Horvath	The Effect of Limonene on the Synthetic Decomposition of Polystyrene	Central Bucks High School-East Robert Meletti
T1406 Kayla Mitchell Olivia Schailey	The Effects of Coastal Angle of Elevation on Reflected Wave Energy	Marine Academy of Tech/Environmental Science John Wnek
T1407 Achyut Reddy Ananth Dandibhotla	Reduction of Catastrophic Interference in Deep Neural Networks	Methacton High School Robert Helm
T1408 Vignesh Parthiban Kaushik Pasikanti	Eco-Friendly Thermal Insulator vs. Commercial R3 Petroleum Based Insulator	Charter School of Wilmington Mark Mervine
T1409 Keira Jones Desarae Ladner	Effects of Coloring Chemicals on Human Hair	SCSSD (Daretown) Rick Hughes
T1410 Doreen Sampeur Yen Nguyen	Determining the Rate of Coagulation of Milk With Bromelain	Upper Darby High School Roseann Burns
T1411 Maggie Oberschmidt Miracle Olatunji	The Effects of Triclosan on Lymnaea Stagnalis	Charter School of Wilmington Chrissy Donahue
T1412 Jake Cruz Chang Ye	I'm Not Catching Your Signal	Vineland HS AMSA Vicki Yeager
T1413 Chikodi Ebo Riley Eisler	Garlic's Effect on Bacteria	Villa Joseph Marie High School Jacqueline Bellerby
T1414 Nina Caprice Alexis Nappa	Not My Cup of Tea	Vineland HS AMSA Vicki Yeager
T1415 Sean Condon Benjamin Melnick	Power Plants: An Investigation of the Efficiency of Polymer Solar Cells Using Various Species of Chlorophyll	Council Rock High School- North Terese Grateful
T1416 Roman Katona Nathan Nazareth	Do Different Materials Prevent Damage From Catastrophic Earthquakes?	Lenape Middle School Jennifer Yeager
T1417 Amelia Casper Emilie March	How Does Lunging Your Horse Affect Their Attitude?	Salem County Vocational Technical School Kristen Redkoles Polk
T1418 Jeremy Wang Joshua Liu	Evaluating and Implementing Novel Statistical Models in Liver Cancer Screening	Methacton High School Robert Helm
T1419 Theo Winter Matthew Ha	Self Phosphorylation of SMK1 in Yeast Cells	Masterman Kathleen Tait
T1420 Jake Brooks Saurabh Shah	The Neo-Sole Accelerometer-based Remote Communications Fall Detection Device	Cherry Hill High School East Aileen Constans

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****BEHAVIORAL/SOCIAL SCIENCES**

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
E0101	Bridget Magee	Betta Fish Memory	Indian Valley Middle School Nancy Cianchetta
E0102	Miles Menasion	Effect of Global Warming Media on Different Audiences	Penn Alexander Stephanie Kearney
E0103	Elizabeth Conlon	Color Aiding Memory in Pre-High School Teens: The CAM Trial	SS. Simon & Jude School Anthony Conlon
E0104	Kavin Sampath	Variations of the Stroop Effect: Kids vs Adults	Moravian Academy Joanne Daniels
E0105	Emma Engler	Do Electronics Affect Your IQ?	Arts Academy Charter Middle School Jennifer Cole
E0106	Aidan Walsh	The Colors of Your Mind	St. Margaret Regional School Regina Butterworth
E0107	Mattie Hiles	How Does Talking on a Cellphone Influence Reaction Time?	Bishop Schad Regional School Dana Ruegger
E0108	Gabrielle Wilga	Memory and the Senses	Holicong Middle School Robert Meletti
E0109	Julia Flatley	Concentration Investigation	St. Dorothy School Gina Flatley
E0110	Dylan Thomas	Hit the books	The Jefferson School Jennifer Chowdhry
E0111	Tess DeBastiani	The Effect of Gender on Visual Processing	Sussex Academy Lauren Hvorecny
E0112	Hannah Allen	Horsin' Around	Our Lady of Mount Carmel School Marianne Thompson
E0113	Else Leebel	Taking a Time Out from Social Media	Sussex Academy Lauren Hvorecny
E0114	Shamar Snead	Think Fast	Mariner Middle School Carly Zych
E0115	Maximus Nast	I Gotta Hand It to You	Holy Child Academy Scott Hartsock
E0116	Sindhu Sivasankar	The Effect of Gum on Students' Memories	Newark Charter School Andrea Narvaez
E0117	John Turner	Mnemonics vs. Memory	Alloway Township School Debra Dilks
E0118	Juliana Merenda	Does Texting Distract Drivers?	Marsh Creek Sixth Grade Center Christopher Merenda
E0119	Kiefer Walsh	The Halo Phenomenon	St. Margaret Regional School Regina Butterworth
E0120	Sawyer Dilks	Are Bilinguals or Monolinguals Better at Focusing on Relevant Information?	Fernwood Avenue Middle School Jeff Warner
E0121	Philip Socha	Driving Distracted on a Video Game	Fernwood Avenue Middle School Jeff Warner
E0122	Brendan Lewis	Reaction Times: How Texting Affects Driving	Stonegate Academy Kim Lewis
E0123	Christina Ing	How Strong is the Placebo Effect?	Sharswood Holly Wagner
E0124	Barbara Sasson	Say It Again!	Torah Academy Sheila Appel



**2017 6TH-7TH-8TH
GRADE ENTRIES**

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0125 Chinue Kinsale	Vote Now!	Ursuline Academy Eileen Koenig
E0126 Jayden Booker	How Does Gender Effect Visual and Auditory Memory?	Alloway Township School Rene Waters
BIOCHEMISTRY		
E0201 Madeleine Cherry	Growing Gummies	Lower Alloways Creek School Stacy Sherman
E0202 Jacob Holcombe	Which Food Produces the Best Growth and Reproduction in European Nightcrawlers?	Holicong Middle School Carrie Bannon
E0203 Julietta Onofrietti	Does Air Exposure and Movement Cause Milk to Spoil Faster?	Toms River Intermediate North Katie Keller
E0204 Sydney Doel	How Does Precipitation Affect Water Quality?	Mariner Middle School Kathleen Fisher
E0205 Elise Bushra	Determining the Amount of Lactose in Various Types of Milk	Bushra Homeschool Elizabeth Bushra
E0206 Dylan Kuang	The Effect of the Household Acid and Base on Lactase Activity	Arcola Intermediate School Cathy Stewart
E0207 Kayla Wawen	Fingerprint Inheritance	William Henry Middle School Christine Barrett Miller
E0208 Ryan Failing	A Sensitive Subject	William Henry Middle School Christine Barrett Miller
E0209 Adira Prior	Five, Four, Three	St. Mary Interparochial School Judy Crossan-Sannicky
E0210 Aksel Hantho	Blind Taste Recognition	Mannington Township School Nancy Anderson
E0211 Estelle Guillot	Which Kills Germs More Effectively: Soap or Sanitizer?	William M. Meredith Christopher Leshock
E0212 Tanya Mehta	Seeking a Cure for Schizophrenia - A Bio-Chemical In Vitro Study to Identify the Innibitas of DAAO-Oxidature Deamination	Orefield Middle School Brian Holtzhafer
E0213 Paul Clark	Leaf Fuel	Engle Middle School David Clark
E0214 Aakash Narayan	Radical Freedom? An Antioxidant Phenomenon!	Great Valley Middle School Vidya Venkatesan
E0215 Swathi Murali	Coffee: How Does Caffeine Affect Heart Rate?	Cedarbrook Middle School Beth Kenna
E0216 Nathan Price	Does the Liquid You Take With a Pill Affect How Fast It Dissolves in Your Stomach?	Fernwood Avenue Middle School Jeff Warner
E0217 Sana Nauman	Antioxidant Power!	Springhouse Middle School Troy Minarovic
E0218 Emily Bernabe	Sugar Content in Ripening Fruit	Holicong Middle School Robert Meletti

BOTANY

E0301 Hannah Sharp	Rad Radishes	Lower Alloways Creek School Stacy Sherman
E0302 Amanda Mottola	How Does Microwave Radiation Affect the Growth Rate of Seeds?	Toms River Intermediate East Sylvia Piznik
E0303 Kiranjoth Singh	How Water Temperature Affects a Plant	Campus Community Charter School Eric Morgan

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0304 Purva Gupta	The Effect of Various Pollutants on the Growth of an Aquatic Plant	Springhouse Middle School Susan Stern
E0305 Steven Cramer	Demonstration and Measurement of Plant Oxygen Production	Galloway Township Middle School Debra Sommers
E0306 Keturah Landis	Flower Power	Dock Mennonite Academy Middle School Lisa Reichley
E0307 Margaret Atkins	No Way to Grow: The Effect of Nitric Oxide on Germination	Academy of Notre Dame de Namur Daniel Cushing
E0308 Qwantez Watkins	Celery and Food Coloring	William Henry Middle School Joyce Leatherbury
E0309 Fadila Sore	Will Saltwater Affect Plant Growth	Middle Years Alternative Ms. Soffer
E0310 Kendra Melniczek	That's IRONic: Beets Can Grow on Mars, But are They Edible?	Owen J. Roberts Middle School Laurie Melniczek
E0311 Mikaiya Humphreys	Go Tomato	Oldmans Township School Jason Winistorfer
E0312 Prem Modi	Glutathione Peroxidase and Free Radical Effects on Seed Germination	Baldi Middle School Mathew Scanlan
E0313 Kevin Tong	Caffeine Effects on Plants	Springhouse Middle School Noel Mahmood
E0314 Madelyn Lewis	Mastering Marigolds	Dock Mennonite Academy Middle School Lisa Reichley
E0315 Chloe Timberg	How Does an Aquaponic System Affect the Growth Rate of a Plant?	Lenape Middle School Jennifer Yeager
E0316 Nathan DiFulvio	Hydroponics vs. Soil: The Effect Growing Medium has on Plant Growth and Health	Holicong Middle School Robert Meletti
E0317 Samantha Barr	Sodium Polyacrylate and its Effect on Plant Growth	St. Dorothy School Robert Barr
E0318 Zoe Magee	Type of Water and Erosion	Cook Wissahickon Diane Powers
E0319 Naman Razdan	Gene Expression in Healthy & Aphid-Infested Switchgrass, <i>Panicum Virgatum</i>	Patton Middle School Seema Ganju

CHEMISTRY

E0401 Morgan Kane	Bubble, Bubble, Bathbomb Trouble	St. Mary Interparochial School Judy Crossan-Sannicky
E0402 Deven Chakrabarti	Invisible Hydrophilic Fishing Line	Moorestown Upper Elementary School April Sullivan
E0403 Vaishnavi Joshi	Fantastic Bioplastic: What is the Effect of Glycerin in Bioplastic on its Decomposition?	Springhouse Middle School Troy Minarovic
E0404 David Yan	Affordable Zero-Emission Fuel Cell Cars: Nonprecious Metal Catalysts by Computer Simulation	H.B. duPont Middle School Dana Wisnoski
E0405 Sunanda Biswas	Does Salt Water Make Steel Rust Faster?	Jordan Road Elementary School Liz Lichtenstein
E0406 Elyse Frey	How Much Energy is Stored in Nuts?	Pittsgrove Township Middle School Kimberly Hetzell
E0407 Hitesh Davuluri	Which Disintegrates Faster? Coated or Uncoated?	West Vincent Elementary School Satish Davuluri
E0408 Maya Butani	Is It Possible to Create a Safer Weedkiller from Plants?	William Allen Middle School Lyndsay Pasi

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
E0409	Christen Radziewicz	The Solubility of Science	Campus Community Charter School Eric Morgan
E0410	Matthew Fu	Eco-friendly Paint	Arcola Intermediate School Cathy Stewart
E0411	Adil Sheikh	Pills Withstanding Acidity	Campus Community Charter School Eric Morgan
E0412	Juby Benny	Effect of Chromium on Brine Shrimp	Baldi Middle School Mathew Scanlan
E0413	Abigayle Heathwaite	Magnetic Deflection of Charged Sub-Atomic Particles	Woodstown Middle School Don Dunner
E0414	Dominick Forgen	Evapo-Race	Bishop Schad Regional School Dana Ruegger
E0415	Bianca Nace	How Effective is Your Lip Balm?	St. Andrew School - Newtown Emily DeLaurentis
E0416	Rutva Shah	Does the Viscosity of a Liquid Affect the Rate at Which a Marble Can Travel Through It?	Toms River Intermediate North Katie Keller
E0417	Arti Dhareshwar	Delivery Method of a Drug and the Affect on Dissolution Rate	Springhouse Middle School Scott Bauer
E0418	Christina Lee	The Effect of Chiral Molecules on the Angle of Rotation of Polarized Light	Valley Forge Middle School Jeehyun Kwon
E0419	Emily Pivnichny	Orange You Glad for Vitamin C?	Indian Crest Middle School Jennifer Odenwald
E0420	Gabrielle McCormick	What's Up With Your Water?	Sussex Academy Lauren Hvorecny
E0421	Camille D'Amico	Do Natural Dyes Create a Better Hue and Safe Dye for Clothing Than Synthetic Dyes?	Richboro Middle School Megan Mohl
E0422	Meg Macauley	Shell Shocked	Ursuline Academy Eileen Koenig
E0423	Natalia Logan	Let's Put a Kick in Your Pill Step	Buckshutem Road School Kristian Torchia

COMPUTER

E0501	Jonathan Ouf	How Much Stress Can Java Take?	Arts Academy Charter Middle School Jennifer Cole
E0502	Bryce Cardy	Cyber Warfare: How Vulnerable Are You?	Dock Mennonite Academy Middle School Lisa Reichley
E0503	David Gogiberidze	Simulation of the Effects of Global Warming on the United States	Holland Middle School Dave Curry
E0504	Eeshwar Krishnan	Using a Computer Algorithm to Predict if a Breast Tumor is Benign or Malignant	Great Valley Middle School Sriram Krishnan
E0505	Julian Ciurlino	Charge Baby Charge	St. Mary Interparochial School Dana Grossi
E0506	Michael Rybalkin	How a Solar Tracker Affects Energy Collection of a Solar Panel	Holicong Middle School Carrie Bannon
E0507	Daryl Fernandez	Paper vs. Computer	Oldmans Township School Jason Winistorfer
E0508	Anthony Kristovich	Self-Organizing Neural Networks Speed	Bishop Schad Regional School Dana Ruegger
E0509	Udit Garg	Smart Medicine Reminder with Audio and Visual Notifications	Springhouse Middle School Daniel Christman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0510	Seagal Joseph	Computer Showdown Baldi Middle School Mathew Scanlan
E0511	Georgia Pissott	Does Shape Affect the EV3 Mindstorm Robot's Ability to Recognize Obstacles? Toms River Intermediate North Katie Keller
E0512	Jeffrey Gong	Accuracy of Forecasting Algorithms: SOSS Quasar Redshift Survey Arcola Intermediate School Cathy Stewart
E0513	Joseph D'Ambrosio	A New Platform for Social Media Engle Middle School Michelle McMullin
E0514	Vincent Cart-Sanders	Space vs. Speed: A Comparison of the Ripple Carry, Sklansky, and Ladner-Fischer Binary Adders Sanders Home School Russell Sanders
E0515	Matthew Levine	Arduino Temperature Sensor Fernwood Avenue Middle School Jeff Warner
E0516	Kush Soni	Programming a Pi Bot with Facial Recognition Youth Achievers Committee Sherita Singleton
E0517	Emily Gratz	What Phone Network is the Best? Pennsville Middle School Cherie Burns

EARTH/SPACE SCIENCES

E0601	Veda Vundela	Does Different Kind of Mud Effect the Amount of Electricity it Produces? Springhouse Middle School Jennifer Karetsky
E0602	Julianne Dee	Going Solar Orefield Middle School Jason Klinger
E0603	Gabrielle Piccirilli	Does Water Depth Affect Wave Velocity? East Norriton Middle School Donna Sole
E0604	Vivianna Onofrietti	Can Various Types of Soapstone From Different Quarries Act as a Natural Way to Keep Drinks Hot for a Longer Period of Time? Toms River Intermediate North Katie Keller
E0605	Cody McBride	Harvesting Free Energy from Powerful Waves McBride Homeschool Cody McBride
E0606	Shayne Ventura	How Deep Does It Get: An In-Depth Look at Mars Haddonfield Friends School Ben Chen
E0607	Kirsten Collins	Water Can Float on Water Cherry Street School Heather Engler
E0608	Sabrina Eisenberg	Wind and Solar Energy Holicong Middle School Robert Meletti
E0609	Amber Biondi	Bright Lights vs. Starry Nights Pittsgrove Township Middle School Kimberly Hetzell
E0610	Owen Ocvchar	Geysers: What Are They Telling Us? St. Mary Magdalen School Maryanne Amalfitano
E0611	Makenna Walko	Get the Dirt on Erosion Villa Maria Academy Lower School Kelly Walko
E0612	Marisa Zimmerman	The Velocity of Tsunamis Quinton Township School Shane Manuel
E0613	Max Keer	Hot Wires, Cool Ideas! St. Mary Interparochial School Judy Crossan-Sannicky
E0614	Joy Asselta	The Science Behind Tsunamis Bishop Schad Regional School Dana Ruegger
E0615	Ethan Thomson	Grounded For Life East Coventry Elementary School Graeme Thomson

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0616 Kayla Cotter	How Does the Curvature of the P-Waves and S-Waves Affect the Accuracy of Determining the Diameter of the Earth's Core When Utilizing Seismic Waves?	Manalapan-Englishtown Middle School Dawn Danza
E0617 Alex Currie	Acid Rain's Effect on Rocks	St. Mary Magdalen School Bernadette Currie
E0618 Joseph Leedy	Redworms: Diet and Soil Quality	Penn Alexander Stephanie Kearney
E0619 Holly Binkowski	Washing Away	Holy Cross Regional Catholic School Jennifer Hitchner
E0620 Riya Keshri	What Robot Design Would be the Most Effective to do Simple Tasks?	Lenape Middle School Jennifer Yeager

ENGINEERING

E0701 Emily Wang	A New Sense of Touch: Pressure Sensitive, Color Changing, Liquid Crystals	Germantown Academy Cory Eklund
E0702 Ife Alao	Aqua Jet!	H.W. Mountz Michael Roche
E0703 Ensar Arslan	The Robotic Glove Project	Sussex Academy Lauren Hvorecny
E0704 Chaelee Crane	Embrace This	North Brandywine Middle School Charles Crane
E0705 Eric Colangelo	Flying High!	Orefield Middle School Amy Kakaley
E0706 Holton Frank	How Different Shapes Effect The Propellers Speed?	Mannington Township School Nancy Anderson
E0707 Iris Kim	Turbines	Penn Alexander Stephanie Kearney
E0708 Elizabeth Massie	How Does the Geometric Shape of a Bridge Structure Affect How Much Weight It Can Hold?	St. Andrew School - Drexel Hill Amanda Hughes
E0709 Sara Kennel	Modern Major Mechanical	Dock Mennonite Academy Middle School Lisa Reichley
E0710 Kimberly Austin	What Paper Made From Renewable Resources is the Strongest?	Toms River Intermediate South Kelly Milnicsuk
E0711 Julia Dever	It's a Bird! It's a Plane! No, It's a Hovercraft!	Haddonfield Friends School Ben Chen
E0712 Cole Hoffman	Temperature Affecting Electricity	Campus Community Charter School Eric Morgan
E0713 Carter Gassler	Self-Balancing Vehicle	Avon Grove Charter School Paul Gassler
E0714 Trent Sapna	Water Works	Sussex Academy Lauren Hvorecny
E0715 Jackson Caldwell	Electromagnetic Propulsion	Milford Central Academy Jacquelyn Powers
E0716 Brandon Decker	Designing an Effective Way to Eliminate Star Trailing	E. T. Richardson Middle School Jim Conlin
E0717 Jeremy Gamble	Laser Guided Walking for the Blind	Holicong Middle School Robert Meletti
E0718 Charles Baeringer	The Forces of Flight	Holicong Middle School Steve Geneva
E0719 Edward Yu	Up, Up, and Away!	Sussex Academy Lauren Hvorecny

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0720	Flavien Moise	Will a Parabola Make WiFi Better? William Allen Middle School Lyndsay Pasi
E0721	Taran Anantasagar	Efficiency of Solar Panels Springhouse Middle School Susan Stern
E0722	Matthew Nguyen	Parts vs. Performance Our Lady of Hope Angela Romano
E0723	Ashley Masters	Will It Slow the Flow? Lighthouse Christian School Jaime Masters
E0724	Nicolas Law	Body Heat And How To Trap It! Lower Alloways Creek School Stacy Sherman
E0725	Brandon Tang	Shaping Seawalls Springer Middle School Jonathan Sypher
E0726	John Masters	Say Sayonara to Salt Lighthouse Christian School Jaime Masters

ENVIRONMENTAL

E0801	William Ostrander	Hydroponic Growing Process vs. Traditional Soil Method Holicong Middle School Carrie Bannon
E0802	Hailey Bierling	Black, White, or Nothing St. Andrew School - Drexel Hill Amanda Hughes
E0803	Zora Stewart	Keep it Clean: How Can Natural Resources Clean Water? Charles W. Henry School Ms. Grant
E0804	Malavika Menon	Bioplastics - For a Better Planet Collegium Charter School Jayant Menon
E0805	Zara Kelemen	The Algae Anomaly? Penn Alexander Stephanie Kearney
E0806	Lily Mayer	Sunscreen and Saltwater Reefs, Not a Good Mix? Orefield Middle School Dianne Caspersen
E0807	Aidan Sickler	Biomass Energy: From Trash to Gas Quinton Township School Shane Manuel
E0808	Madison Holt	Which Characteristics of Coastal Plants are Able to Reduce the Most Amount of Beach Erosion? Sussex Academy Lauren Hvorecny
E0809	Justin Weiss	Solar Shade: Effects of Obstruction on Efficiency of Polycrystalline Solar Panels Germantown Academy Cory Eklund
E0810	Samantha Koenemann	Flourishing Flowers Newark Charter School Andrea Narvaez
E0811	Jordan Strain	Solar vs. Propane Desalination Abington Junior High School Ed Steinhardt
E0812	Nandini Bhatt	The Waste Case - Segregating Household Kitchen Organic Waste Great Valley Middle School Chirantan Bhatt
E0813	Jackson Meyer	Toms River Intermediate North Katie Keller
E0814	Vidya Balaji	Effectiveness of Biodegradable Plastics vs. Real Compost and Conventional Plastic Lenape Middle School Jennifer Yeager
E0815	Marilyn Langley	Magnetite, the Quicker Picker Upper: Using Magnetite to Clean Up Oil Spills Academy of Notre Dame de Namur Kathleen McTiernan
E0816	Dylan Phillips	Which Type of Salt Melts Ice the Fastest? Milford Central Academy Jacquelyn Powers
E0817	Gokul Perugu	The Effect of Scenedesmus on the Bioremediation of Oil Spills Springhouse Middle School Daniel Christman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E0818	Melanie Fritchman Simply Green	Beacon Middle School Adam Kindl
E0819	Steven Schwan The Water SAPper	Milford Central Academy Jacquelyn Powers
E0820	John Cobin Get The Lead Out! How pH Effects Lead Contamination	Oldmans Township School Jason Winistorfer
E0821	F.X. Patterson The Effect of Electric Current on the Growth of Basil Plants	Sussex Academy Lauren Hvorecny
E0822	Gianna Voges Bill Nye Was Right, You Guys	Sussex Academy Lauren Hvorecny
E0823	Gladys Ramos Going Green As You Clean	Baldi Middle School Mathew Scanlan
E0824	Julia Morgan How Does Leaf Width Affect the Amount of Moisture a Dew Drop Can Collect?	Toms River Intermediate South Kelly Milnicsuk
E0825	Molly Dopler Plant Pharm - Do Nutritional Supplements Entering the Environment Affect Plant Growth?	Sussex Academy Lauren Hvorecny
E0826	Judy van Rooyen Levels of Ozone	Springer Middle School Jonathan Sypher
E0827	Yuhki Saleff How Do Different Types of Soil Affect the pH of Water?	Millsboro Middle School Lorraine Jordin

MATHEMATICS

E0901	Rohan Mehta The Golden Ratio	Moravian Academy Joanne Daniels
E0902	John Rafter Batter Up!	Philadelphia Academy Charter Grade School Joseph Egan
E0903	Eris Qosja Can an Algorithm be Devised to Solve the Rubik's Cube?	Manalapan-Englishtown Middle School Kathleen Whitney
E0904	Samudrika Mohanta Estimating Flu Vaccine Effectiveness for Current Year	Downingtown Middle School Pramod Mohanta
E0905	Neha Skandan Prediction of the Stock Market Using the Gaussian Function	Moravian Academy Joanne Daniels
E0906	Christopher Poon How Many People is an Average Person Connected to?	Holicong Middle School Carrie Bannon
E0907	Jacob Lapp Use It or Lose It	Quinton Township School Shane Manuel
E0908	Michael Wang Are Cancer Rates Higher Near Nuclear Power Plants?	Arcola Intermediate School Cathy Stewart
E0909	Addison Liu Proof of Maekawa's Theorem Using Flat-Folding Bases	Patton Middle School Stanley Liu
E0910	Aruna Balasubramanian Algorithmic Grammar Complexity and Language Learning	French International School of Philadelphia Valerie Denny
E0911	Mya Fleming Mirror Reflections	Saint Francis Xavier Theresa O'Brien
E0912	Ryan Bencivengo Can We Make Music Out of Math?	St. Andrew School - Newtown Emily DeLaurentis
E0913	Michael Nieves The Birthday Paradox	Fernwood Avenue Middle School Jeff Warner
E0914	McKayla Buehler Soap For You 2	Lower Alloways Creek School Stacy Sherman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR	
MEDICINE/HEALTH			
E1001	Alicia Brown	A Fresh Smile	ExCel Deena Osmer
E1002	Alan Knudsen	Red, Orange, Yellow, Green, Blue - Which Color Will You Choose?	Fernwood Avenue Middle School Jeff Warner
E1003	Rose Rowe	To Grunt or Not to Grunt? That is the Question	West Fallowfield Christian School Bettie Rowe
E1004	Jacob Donmoyer	Biometrics of Pitching	Springhouse Middle School Daniel Christman
E1005	Elodie Gauffeny	These Foods Are Made For Walking	Alloway Township School Debra Dilks
E1006	Reuben Trachtenberg	How Sugar Affects Your Brain	Lenape Middle School Jennifer Yeager
E1007	Yaneana Leedie	Battle of the Scenes: Taste vs. Smell	Saint Francis Xavier Theresa O'Brien
E1008	Emma Kuska	Effect of Light Intensity on Color Recognition in the Peripheral Field of Vision	Sussex Academy Lauren Hvorecny
E1009	Julie Thiemann	Making Sense of Taste and Scent	Ursuline Academy Eileen Koenig
E1010	Gianna Marino	Sensitivity on the Dominant Side of the Body	Holicong Middle School Steve Geneva
E1011	David Maturo	Lights, Color, Action! The Study of Color Vision Deficiency	Haddonfield Friends School Ben Chen
E1012	Helen Wu	Hotel Horrors - How Clean is Hotel Ice?	Germantown Academy Middle School Rolland Wakeman
E1013	Ishan Shah	Does the Coating of Different Types of Medicine Affect the Solubility?	Toms River Intermediate North Katie Keller
E1014	Sonia Sandhu	Will Citrate Help to Prevent the Formation of New Kidney Stones?	Orefield Middle School Amy Kakaley
E1015	Nina Hite	Does Stress Cause Body Temperature to Rise?	William Henry Middle School Cheryl Tyrell
E1016	Ben Rubinich	Head Case: The Effectiveness of Helmets in Reducing Concussions in Youth Sports	Holy Family School Melissa Rubinich
E1017	Christina Marcini	Beast of the Yeast	Ursuline Academy Eileen Koenig
E1018	Prathysha Kothare	Unfolding WF's Mysteries: Impact of Genetic Mutations and Pathology on SF's A2 Domain Mechanosensitivity	Orefield Middle School Brian Holtzhafer
E1019	Daniel Deeney	Spatter Matters	Holy Child Academy Scott Hartsock
E1020	Stephen Walicki	Ditch The Itch	Penn Alexander Stephanie Kearney
E1021	Carolyn Almonte	The Effect of UV Radiation on the Metamorphic Process of Zophobas Larvae and the Ability of Bixin to Protect Against Observed UV Induced OF Bixin Induced Damage	Youth Achievers Committee Sherita Singleton
E1022	Savannah Sakaguchi	The Placebo Effect	Oldmans Township School Jason Winistorfer
E1023	Amelie Born	The Impact of Running	Germantown Academy Cory Eklund

PRESENTER**EXHIBIT****SCHOOL & SPONSOR****MICROBIOLOGY**

E1101	Alexa Horvath	The Effect of Essential Oils on Bacterial Colonization	Holicong Middle School Steve Geneva
E1102	Lillian Miller	Microfiber Pollution and Microbial Microenvironments	Perkiomen Valley High School Julie Mest
E1103	Lana Van Note	Which Synthetic Organic Polymer Can Native Soil Microbes Biodegrade Most Efficiently?	Toms River Intermediate North Katie Keller
E1104	Abhishek Hatkar	The Science of Yogurt	Campus Community Charter School Eric Morgan
E1105	Cody Kulick	Which Antibiotics are the Most Effective at Inhibiting Escherichia Coli?	St. Jude School Anita Marko
E1106	Lucas Gonzalez	Natural Antibacterial Substances vs. Bacteria Cultured From Raw Hamburger Meat	Mariner Middle School Carly Zych
E1107	Tristan Travis	Silver Nanoparticles vs. Germs - The Battle for Survival	McCall Scott Knoflicek
E1108	Isata Bangura	Cleaning with Fruits and Vegetables	Campus Community Charter School Eric Morgan
E1109	Makayla Egolf	Natural vs. Chemical Disinfectants	Philadelphia Academy Charter Grade School Joseph Egan
E1110	Raeann Caltabiano	What Type of Milk has the Most Bacteria?	Upper Pittsgrove School Danielle Taulane
E1111	Leah Walter	The Effects of Honey vs. Antibiotic on Bacteria	Patton Middle School Susan Walter
E1112	Ellisyn Arthur	Which Container Keeps Strawberries Fresh Longer: A Plastic Container, Ziploc Bag or Fruit Keeper?	William Henry Middle School Cheryl Tyrell
E1113	Prithvi Parthasarathy	Which Antimicrobial Agent is Effective in Combating Antibiotic Resistance in E-coli?	Great Valley Middle School Padhmaja Kannan
E1114	Caitlin Sia	Will the Use of an Ultra-Violet Light Inside a Refrigerator Reduce the Growth of Microorganisms on Strawberries?	Toms River Intermediate North Katie Keller
E1115	Sydney Rohrbach	Goggling Bacteria	Indian Crest Middle School Jennifer Odenwald
E1116	Noah Salaam	Hardy Tardigrades	Haddonfield Friends School Ben Chen
E1117	Rylie Gantz	Which Toothbrush Removes Bacteria From Your Teeth the Best - Electric or Manual?	Upper Pittsgrove School Danielle Taulane
E1118	Jane Cohen	A Bacterial Analysis of Reptiles	William Allen Middle School Lyndsay Pasi

PHYSICS

E1201	Kylee Countryman	Magnet-ficent Strength	William Henry Middle School Christine Barrett Miller
E1202	Gannon Webb	Deflate Gate?	Sussex Academy Lauren Hvorecny
E1203	Katelyn Deal	Does the Amount of Air Pressure in a Soccer Ball Affect How Far it Will Travel?	Upper Pittsgrove School Danielle Taulane
E1204	Tyler Henry	Does Weight Affect Distance?	William Henry Middle School Cheryl Tyrell
E1205	Navein Suresh	Mathematical Modeling to Calculate Recycled Fuel Efficiency	Spring Ford 7th Grade Center Elizabeth Croll

PRESENTER		EXHIBIT	SCHOOL & SPONSOR
E1206	Ashley Ciampitti	Parachute Designs	St. Dorothy School Denise Ciampitti
E1207	Hardik Bhardwaj	Spinning Wheels to Defy Gravity!	William Allen Middle School Lyndsay Pasi
E1208	Emad Alawi	How Much Can Light Bend?	Haddonfield Friends School Ben Chen
E1209	Joshua Durham	Magnificent Magnets	ExCel Deena Osmer
E1210	Liam Buckley	Bat Wars	St. Mary Magdalen School Maryanne Amalfitano
E1211	Anna Cool	Flying Physics	Ursuline Academy Eileen Koenig
E1212	Bruno Gonzalez	Effect of Friction on Objects in Motion	Quarter Mile Lane School Kathleen Sharp
E1213	Adrian Guenther	Sounds Amazing! - Frequencies and Volume of a Self-made Speaker	Orefield Middle School Thomas Bryant
E1214	Maxine Guillot	Particle Matters	William M. Meredith Christopher Leshock
E1215	Anna Pryor	Electronics Speakers - We Hear Them All Around Us	Ursuline Academy Eileen Koenig
E1216	Drew Cohen	How the Strength of a Magnet Varies With Temperature	St Peters School Dirk Parker
E1217	Vedavyas Jampanaboyana	What is the Effect of Different Materials (cardboard, balsa wood, and plastic folder) of a Wind Power Blade on the Amount of Voltage a Wind Turbine Produces?	Springhouse Middle School Scott Bauer
E1218	Noah Blair	Cracking Under Pressure	Campus Community Charter School Eric Morgan
E1219	Reil Abashera	Why Not Wind?	Penn Alexander Stephanie Kearney
E1220	Holden Emery	The Science Behind the Swing	Holicong Middle School Robert Meletti
E1221	Sophia Merlino	What Effects do Water, Soap, Vinegar, and Canola Oil Have on Surface Tension?	Toms River Intermediate North Katie Keller
E1222	Minseo Oh	Refraction of Light in Different Mediums	Lenape Middle School Jennifer Yeager
E1223	Diya Jariwala	Does the Amount of Iron in Cereal Affect the Cereal's Magnetism?	Toms River Intermediate North Katie Keller
E1224	John C. Porter	Do You See What I Hear? Evaluation of Cymatic Representations of Complex Music Structures	St. Joseph School John M. Porter
E1225	Vrishti Yadav	Building a Hygrometer to Measure Air Pressure	North Penn High School Melody Leithold
E1226	Jack Ringenbach	Hydrophobicity vs. Temperature	St. Elizabeth School Dan Ringenbach
E1227	Kalei Chowdhry	She Shoots - She Scores	The Jefferson School Jennifer Chowdhry
E1228	John Morrissey	Need For Speed	Lower Alloways Creek School Stacy Sherman

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
ZOOLOGY		
E1301 Anwar Lami	Using Daphnia to Measure Water Toxicity	Woodrow Wilson MS Brian Mayger
E1302 Samson Gerner	Does the Change in Temperature Effect the Hatching Process?	Bishop Schad Regional School Dana Ruegger
E1303 Zoszia Zabrenski	Does Feeding Peanuts to Chickens Make Their Eggs Bigger?	Owen J. Roberts Middle School Jennifer Watt
E1304 Laurel Latt	Daphnia Dilemma	Dock Mennonite Academy Middle School Lisa Reichley
E1305 Leigh Herbst	Reducing Anxiety In Guinea Pigs When Traveling By Car	Holicong Middle School Carrie Bannon
E1306 Joseph DellaPenna	What Types of Seeds do Different Species of Birds Prefer?	West Fallowfield Christian School Kim DellaPenna
E1307 Savanna Harvey	Dog Paw Preference	Elsinboro Township School Joe Sarbello
E1308 Giovanna Onofrietti	Can Natural Oils Act as Insecticide to Kill Mosquito Larvae?	Toms River Intermediate North Katie Keller
E1309 Hana Yang	Hatching a New Idea to Incubate Chicks	Orefield Middle School Dianne Caspersen
E1310 Francis Sargente	You Are What You Eat	Assumption Regional Catholic School Michael Sargente
E1311 Vorith Tadjibaev	Unnatural vs. Natural Sugar on Mice	Baldi Middle School Mathew Scanlan
E1312 Giovanna Consiglio	The Effect of Common Household Products on Harvester Ants	Arcola Intermediate School Cathy Stewart
E1313 Madeleine Jackson	Betta Fish Eating Habits	Campus Community Charter School Eric Morgan
E1314 Andrew McGurk	More Water or Less?	Mariner Middle School Kathleen Fisher
E1315 Giovanni Calabrese	Thermal Imaging of Different Mammal Species	St. Dorothy School Michael Calabrese
E1316 Shannon Emmett	Green, Blue, Red: What Color Is Best For Your Hen?	Oldmans Township School Jason Winistorfer
E1317 Rahul Inaganti	What is the Effect of Limestone on Acidified Cultures of Daphnia Magna?	Springhouse Middle School Scott Bauer
E1318 Phoebe Cramer	When the Ants Go Marching in	St. Andrew School - Newtown Emily DeLaurentis

TEAM PROJECTS

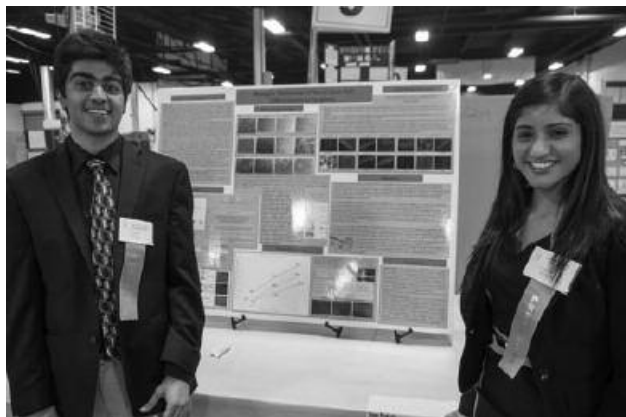
E1401 Haleigh Schafer Kathleen Walls	Manure Madness	Assumption Regional Catholic School Sheryl Cordivari
E1402 Samantha Farnkopf Noel King	Different Soils Different Growth!	Lower Alloways Creek School Stacy Sherman
E1403 Colin Harrell Marcos Rivera	Reasons For Seasons	Quarter Mile Lane School Kathleen Sharp
E1404 Michael O'Rourke Domenic Scaffidi	The Science of Kevlar®	Folsom Elementary School Chris Roth
E1405 Raghav Akula Shrish Bayyapu Viraj Pentapalli	Does Playing a Game on an iPad Affect Brain Performance?	Moorestown Upper Elementary School April Sullivan

PRESENTER	EXHIBIT	SCHOOL & SPONSOR
E1406 Joseph Georgescu Sean Lehane	How Far Can Sparks Go?	St. Andrew School - Newtown Emily DeLaurentis
E1407 Olivia Little Mary Pietrowski	Does Gender Affect Vision?	Quinton Township School Shane Manuel
E1408 Mya Sulimay Olivia Zimmerman	Mendela Effect	Saint Francis Xavier Theresa O'Brien
E1409 Sukhman Kaur Emily Turner	Detergent Detectives	Newark Charter School Andrea Narvaez
E1410 Gabrielle Schoener Emily Rimbey	What Diaper Brand Soaks up Liquid Better and Faster?	Arts Academy Charter Middle School Jennifer Cole
E1411 Simon Ambrose Anthony D'Addezio	The Strongest Bridge	St. Joseph School Kim D'Addezio
E1412 Mackenzie Kelly Julia Perate	Can Lithium Batteries Burn Through Store Bought Meat?	St. Andrew School - Newtown Emily DeLaurentis
E1413 Vishnu Gadicharla Luke Wedel	Effects of Different Solutions on Growth of Plants	Newark Charter School Andrea Narvaez
E1414 Madison Wilson Gabrielle Cadden-James	How to Determine Sound Energy Using a Laser	Arts Academy Charter Middle School Carole Ondiovic
E1415 Jonathon Lopez Jenry Yoc	Bottled-Up Buoyancy	Buckshutem Road School Kristian Torchia

CONSUMER SCIENCE

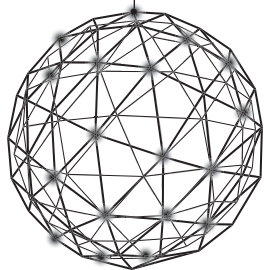
E1501 Michael Greenberg	How Do Different Energy Drinks Affect the Amount of Electrolytes in the Human Body?	Manalapan-Englishtown Middle School Marie Behnke
E1502 Maria Recupero	How Different Proportions of Ingredients Affect the Outcome of a Cookie	Lenape Middle School Jennifer Yeager
E1503 Jason Croly	Electrolytes and Where to Find Them	Delran Middle School Eric Brown
E1504 Morgan Elizabeth Maloney	What is the Best Laundry Stain Remover Brand?	Nazareth Academy Grade School Susan Hujber
E1505 Julia Scholtz	Lotion, The Perfect Potion	St. Mary Magdalen School Maryanne Amalfitano
E1506 Stephen Padlo	Does a Metal Detector Perform Better in Wet or Dry Conditions?	Upper Pittsgrove School Danielle Taulane
E1507 Alexis Cramp	Firefighter Safety	Indian Crest Middle School Jennifer Odenwald
E1508 Amahni Bussey	Sweet Edible Slime	Cherry Street School Heather Engler
E1509 Marissa Civatte	Which Insulation?	Avon Grove Charter School Tim Civatte
E1510 Emma Afflerbach	What Shoots Better?	Aura Elementary School Ashley Davis/Heather Eckfeld
E1511 Charles Pascual	Let There Be Light!	St. Andrew School - Drexel Hill Amanda Hughes
E1512 Katrina Sudler	Nail Polish - Price vs. Quality	Campus Community Charter School Eric Morgan
E1513 Ava Cahill	Which Brand of Adhesive Bandage Can Withstand Water the Longest?	Toms River Intermediate North Katie Keller

PRESENTER		EXHIBIT	SCHOOL & SPONSOR
E1514	Samiha Shahnawaz	The Decomposition Rate of Recycled vs. Non Recycled Paper	Penn Alexander Ms. Foster
E1515	Natalie Perez	Suction Cup Ornament Holder For Mom	Buckshutem Road School Kristian Torchia
E1516	Charlotte Miller	It's Too Loud!	Beacon Middle School Christopher Lenhart
E1517	Jaylea Landfried	The Big Bubble Experiment	William Henry Middle School Shawn Banks
E1518	Mia DiLeonardo	Tone Up the Tap	Pittsgrove Township Middle School Kimberly Hetzell
E1519	Riley Growney	What Methods of Preservation Keep Food Fresh Longest?	Lenape Middle School Jennifer Yeager
E1520	Joanna Steinig	Evaluating the Correlation between Price and an Advertised Attribute in Shampoo	Steinig Family Homeschool Rodi Steinig
E1521	Dominic Dasilva	Which Pencil is the Best?	Abington Junior High School Ed Steinhardt
E1522	Madeline Ladd	Oh What A Relief It Is: The Most Effective Antacid	St. Agnes School Jill Ladd
E1523	Alec Rodriguez	How Does Fabric Softener Affect the Flammability of Fabrics?	Campus Community Charter School Eric Morgan



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SPECIAL AWARDS DIRECTOR	Mickey Disston
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E-Fair	Harry Anselmo and Tom Parsha
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Teams (6-8)	Jerry Stein
Medals	Dick Close
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Judges	Dick Close and John Disston

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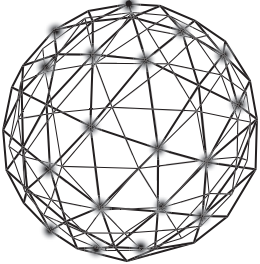
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 Sheila Appel
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 Tim Civatte
 David Clark
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 Jim Conlin
 Anthony Conlon
 Aileen Constans
 Sheryl Cordivari
 Roy Costa
 Charles Crane
 Elizabeth Croll

SCHOOL

Malvern Preparatory School
 Bishop Shanahan High School
 George Washington High School
 St. Mary Magdalen School
 Charter School of Wilmington
 Mannington Township School
 Bridgeton High School
 Torah Academy
 William Henry Middle School
 Holicong Middle School
 St. Dorothy School
 Westtown School
 Springfield High School
 The Marine Academy of Science and Technology
 Carver High School
 Upper Darby High School
 Springhouse Middle School
 Lower Moreland High School
 Manalapan-Englishtown Middle School
 Villa Joseph Marie High School
 Frankford High School
 Great Valley Middle School
 Holmdel High School
 Bishop Shanahan High School
 Bracetti Academy Charter School
 Villa Joseph Marie High School
 Bishop Shanahan High School
 Wissahickon High School
 Egg Harbor Township High School
 Delran Middle School
 Orefield Middle School
 Wissahickon High School
 Pennsville Middle School
 Upper Darby High School
 Bushra Homeschool
 Bushra Homeschool
 St. Margaret Regional School
 St. Dorothy School
 Bishop Shanahan High School
 Orefield Middle School
 Manalapan High School
 Haddonfield Friends School
 Bishop Shanahan High School
 The Jefferson School
 Springhouse Middle School
 St. Dorothy School
 Indian Valley Middle School
 Council Rock High School- South
 Woodstown High School - Pilesgrove High School
 Avon Grove Charter School
 Engle Middle School
 Arts Academy Charter Middle School
 E. T. Richardson Middle School
 SS. Simon & Jude School
 Cherry Hill High School East
 Assumption Regional Catholic School
 Carriagebrook Academy
 North Brandywine Middle School
 Spring Ford 7th Grade Center

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 AND SCHOOLS**



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Daniel Cushing
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Dawn Danza
Gregory Darone
Satish Davuluri
Gabriella Dee
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Penny Diehl
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Don Dunner
Ashley Davis/
Heather Eckfeld
Dawn Edelman
Joseph Egan

Pamella Eggleston
Cory Eklund
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Marie Englehart
Heather Engler
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SCHOOL

St. Mary Interparochial School
St. Mary Magdalen School
Holland Middle School
Academy of Notre Dame de Namur
St. Joseph School
Moravian Academy
Manalapan-Englishtown Middle School
Charter School of Wilmington
West Vincent Elementary School
Moravian Academy
St. Andrew School - Newtown
West Fallowfield Christian School
French International School
of Philadelphia
Easton Area High School
Alloway Township School
Charter School of Wilmington
Chester County Donnelley Homeschool
Bishop Shanahan High School
Polytech High School
Pennsville High School
Woodstown Middle School

Aura Elementary School
Upper Dublin High School
Philadelphia Academy Charter
Grade School
Central Bucks High School- East
Germantown Academy
Springfield High School
Englehart Homeschool
Cherry Street School
The Baldwin School
Woodbridge High School
Camden Academy Charter High School

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Christopher Gahman
Megan Gallagher
Seema Ganju
Paul Gassler
Josh Gates
Steve Geneva
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Laura George
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Christine Girtain
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Melanie Gomba
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Brian Grillo
Dana Grossi
Scott Hartsock
Chris Havrilla
Mark Hayden
Mark Hayden
Robert Helm
Marti Helmick
Robert Herbstritt
Melissa Herrmann
April Hershey

SCHOOL

Northeast High School
Mariner Middle School
St. Dorothy School
Upper Dublin High School
Penn Alexander
Bishop Shanahan High School
Malvern Preparatory School
Parkland High School
Upper Dublin High School
Patton Middle School
Avon Grove Charter School
Tatnall School
Holicong Middle School
Villa Joseph Marie High School
Owen J. Roberts High School
Academy of Notre Dame de Namur
Bishop Shanahan High School
Toms River High School North
Toms River High School South
Bishop Shanahan High School
Bishop Shanahan High School
Charles W Henry School
Council Rock High School- North
Chester County Greene Homeschool
Cherry Hill High School West
St. Mary Interparochial School
Holy Child Academy
Woodbridge High School
Central Bucks High School- West
Tamanend Middle School
Methacton High School
Lacey Township High School
Central High School
Downingtown STEM Academy
Bishop Shanahan High School



Teacher Awards: Carol Ward and Mike Roche

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 Leanne Jones
 Lorraine Jordin
 Amy Kakaley
 Padhmaja Kannan
 Jennifer Karetsky
 Michael Katz
 Stephanie Kearney
 Katie Keller
 Jason Kelsey

Beth Kenna
 Sarah Kesten
 Diane Kilker
 Adam Kindl
 Jason Klinger
 Tim Knipe
 Scott Knoflicek
 Eileen Koenig
 Christopher Kramer
 Sriram Krishnan
 John Kuzan
 Jeehyun Kwon
 Jill Ladd

SCHOOL

Pittsgrove Township Middle School
 Chester County Hicks Homeschool
 Holy Cross Regional Catholic School
 Hoffman Homeschool
 Orefield Middle School
 Downingtown STEM Academy
 SCSSD (Daretown)
 St. Andrew School - Drexel Hill
 Nazareth Academy Grade School
 Sussex Academy
 The Perkiomen School
 Bishop Shanahan High School
 Wise and Pure Senior High School
 Upper Dublin High School
 Millsboro Middle School
 Orefield Middle School
 Great Valley Middle School
 Springhouse Middle School
 Charter School of Wilmington
 Penn Alexander
 Toms River Intermediate North
 Marine Academy of Tech/
 Environmental Science
 Cedarbrook Middle School
 Germantown Academy
 St. Dorothy School
 Beacon Middle School
 Orefield Middle School
 Unionville High School
 McCall
 Ursuline Academy
 Charter School of Wilmington
 Great Valley Middle School
 Lacey Township High School
 Valley Forge Middle School
 St. Agnes School

TEACHER

Brent Landrum
 Ellen Leaper
 Joyce Leatherbury
 Melody Leithold
 Christopher Lenhart
 Christopher Leshock
 Kim Lewis
 Liz Lichtenstein
 Joanne Lilliendahl
 Sandra Litvin
 Stanley Liu
 Rose Lounsbury
 Lonnie Lusavage
 Ann MacLean
 Adetola Magbageola
 Noel Mahmood
 Shane Manuel
 Anita Marko
 John Marlin
 Jaime Masters
 Brian Mayger
 Cody McBride
 Kerri McBride
 Michelle McMullin
 Kathleen McTiernan
 Robert Meletti
 Robert Meletti
 Laurie Melniczek
 Jayant Menon
 Christopher Merenda
 Mark Mervine
 Anthony Messina
 Julie Mest
 Christine Barrett Miller
 Kelly Milnicsuk
 Troy Minarovic

SCHOOL

Emmaus High School
 Villa Joseph Marie High School
 William Henry Middle School
 North Penn High School
 Beacon Middle School
 William M. Meredith
 Stonegate Academy
 Jordan Road Elementary School
 Upper Dublin High School
 Unionville High School
 Patton Middle School
 Charter School of Wilmington
 Octorara Area High School
 Biotechnology High School
 Charter School of Wilmington
 Springhouse Middle School
 Quinton Township School
 St. Jude School
 Our Lady of Mt. Carmel Homeschool
 Lighthouse Christian School
 Woodrow Wilson MS
 McBride Homeschool
 McBride Homeschool
 Engle Middle School
 Academy of Notre Dame de Namur
 Central Bucks High School- East
 Holicong Middle School
 Owen J Roberts Middle School
 Collegium Charter School
 Marsh Creek Sixth Grade Center
 Charter School of Wilmington
 Bethlehem Catholic High School
 Perkiomen Valley High School
 William Henry Middle School
 Toms River Intermediate South
 Springhouse Middle School



TEACHER**SCHOOL**

Pramod Mohanta
 Megan Mohl
 Eric Morgan
 Margaret Muller
 Andrea Narvaez
 Julie Nowicki
 Theresa O'Brien
 Jennifer Odenwald
 Kelly O'Donnell
 Julie O'Hara
 Carole Ondiovic
 Stephen Ordog

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 Lyndsay Pasi
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 Gerald Poirier
 Kristen Redkoles Polk

Pamela Porter
 John M. Porter
 Jacquelyn Powers
 Diane Powers
 David Price
 Laurie Puccino
 Kevin Quinn
 Lisa Reichley
 Conrad Rice
 Chris Rickard

Daniel Ringenbach
 Dan Ringenbach

Downingtown Middle School
 Richboro Middle School
 Campus Community Charter School
 Bishop Shanahan High School
 Newark Charter School
 Biotechnology High School
 Saint Francis Xavier
 Indian Crest Middle School
 Bishop Shanahan High School
 Bishop Shanahan High School
 Arts Academy Charter Middle School
 Woodstown High School -
 Pilesgrove High School
 Garnet Valley High School
 ExCel
 St Peters School
 STEM Up
 William Allen Middle School
 Liberty High School
 Toms River Intermediate East
 Charter School of Wilmington
 Salem County Vocational
 Technical School
 Bishop Shanahan High School
 St. Joseph School
 Milford Central Academy
 Cook Wissahickon
 Upper Dublin High School
 Bishop Shanahan High School
 Malvern Preparatory School
 Dock Mennonite Academy Middle School
 Charter School of Wilmington
 Woodstown High School -
 Pilesgrove High School
 Bishop Shanahan High School
 St. Elizabeth School

TEACHER**SCHOOL**

Michael Roche
 Michael Roche
 Angela Romano
 Sheila Romine
 Chris Roth
 Vanessa Routh
 Bettie Rowe
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 Kellena Smith
 Kathleen Sobkow
 Ms. Soffer
 Donna Sole
 Debra Sommers
 Jennifer Sorbello

Scott Stein
 Ed Steinhardt
 Rodi Steinig
 Susan Stern

High Technology High School
 H.W. Mountz
 Our Lady of Hope
 PA Leadership Charter School
 Folsom Elementary School
 Routh Home School
 West Fallowfield Christian School
 Holy Family School
 Girard Academic Music Program
 Bishop Schad Regional School
 Sanders Home School
 Elsinboro Township School
 Assumption Regional Catholic School
 Baldi Middle School
 Temple University Math Science
 Upward Bound
 Schmolz Academy Homeschool
 Temple University Math Science
 Upward Bound
 Collegium Charter School
 Downingtown STEM Academy
 Science Leadership Academy
 Quarter Mile Lane School
 Lower Alloways Creek School
 Youth Achievers Committee
 Dock Mennonite Academy High School
 Easton Area High School
 Middle Years Alternative
 East Norriton Middle School
 Galloway Township Middle School
 Woodstown High School -
 Pilesgrove High School
 Springside Chestnut Hill Academy
 Abington Junior High School
 Steinig Family Homeschool
 Springhouse Middle School



2016 ISEF participants



ISEF

TEACHER

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 Cheryl Tyrell
 Michael Valenti
 Dr. Doug Vallette
 Vidya Venkatesan
 Peter vreeland
 Holly Wagner
 Rolland Wakeman
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SCHOOL

Arcola Intermediate School
 Charter School of Wilmington
 Moorestown Upper Elementary School
 Villa Joseph Marie High School
 Delaware County Christian School
 Springer Middle School
 Masterman
 Upper Pittsgrove School
 Collegium Charter School
 Central Bucks High School- South
 Our Lady of Mount Carmel School
 East Coventry Elementary School
 Charter School of Wilmington
 Buckshutem Road School
 Central High School
 William Henry Middle School
 Charter School of Wilmington
 Unionville High School
 Great Valley Middle School
 Upper Merion High School
 Sharswood
 Germantown Academy Middle School
 Villa Maria Academy Lower School
 Patton Middle School
 Unionville High School

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 Dana Wisnoski
 John Wnek

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 Bonnie Wu
 Jennifer Yeager
 Vicki Yeager
 Alexandra York
 Joyce Zeka

 Matt Zipin
 Nicholas Zlupko
 Carly Zych

SCHOOL

Pennbrook Middle School
 Fernwood Avenue Middle School
 Alloway Township School
 Moorestown High School
 Owen J. Roberts Middle School
 Manalapan-Englishtown Middle School
 Bishop Shanahan High School
 Woodstown High School -
 Pilesgrove High School
 Oldmans Township School
 H.B. duPont Middle School
 Marine Academy of Tech/
 Environmental Science
 Souderton Area High School
 Cheltenham High School
 Great Valley High School
 Lenape Middle School
 Vineland HS AMSA
 Lacey Township High School
 Philadelphia Academy Charter
 High School
 Germantown Friends School
 Villa Joseph Marie High School
 Mariner Middle School



Fun at ISEF



Judges at work



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