

PROGRAM OF ENTRIES 2016

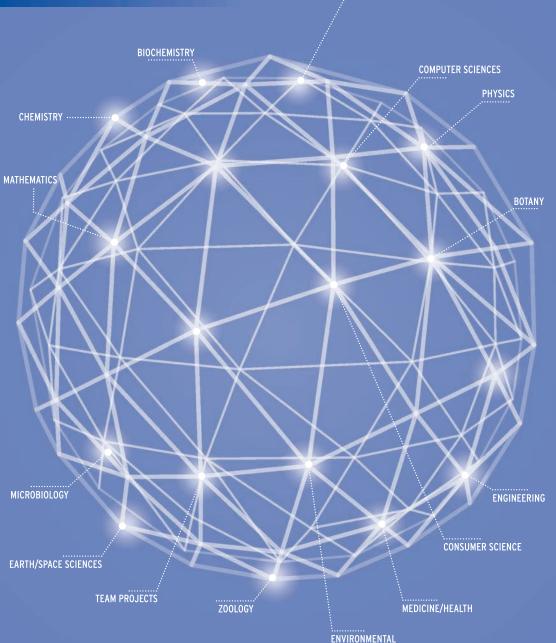
68TH DELAWARE VALLEY SCIENCE FAIRS 6th - 12th Grades

MARCH 29 - 31, 2016

The Greater Philadelphia Expo Center Oaks, Pennsylvania

SPONSORED IN PART BY

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STUDENT RESEARCH:

12TH GRADE

Behavioral/Social Sciences
Biochemistry15
Botany15
Chemistry15
Computer Sciences
Earth/Space Sciences16
Engineering16
Environmental17
Mathematics17
Medicine/Health17
Microbiology18
Physics
Zoology18

11TH GRADE

Behavioral/Social Sciences	19
Biochemistry	20
Botany	20
Chemistry	
Computer Sciences	
Earth/Space Sciences	22
Engineering	22
Environmental	23
Mathematics	
Medicine/Health	
Microbiology	25
Physics	25
Zoology	

10TH GRADE

Behavioral/Social Sciences	7
Biochemistry	7
Botany	3
Chemistry	3
Computer Sciences)
Earth/Space Sciences)
Engineering)
Environmental	1
Mathematics	1
Medicine/Health	2
Microbiology	3
Physics	3
Zoology	ļ

9TH GRADE

ii c	INADL
	Behavioral/Social Sciences
	Biochemistry
	Botany
	Chemistry
	Computer Sciences
	Earth/Space Sciences
	Engineering
	Environmental
	Mathematics
	Medicine/Health
	Microbiology
	Physics
	Zoology40

TEAM PROJECTS

9TH THROUGH 12TH GRADE	
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6TH, 7TH, 8TH GRADES

Behavioral/Social Sciences
Biochemistry
Botany45
Chemistry46
Computer Sciences47
Earth/Space Sciences47
Engineering48
Environmental
Mathematics50
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ITY OF PHILADELPHIA

OFFICE OF THE MAYOR 215 City Hall Philadelphia, PA 19107 (215) 686-2181 FAX (215) 686-2180 JAMES F. KENNEY Mayor

March 30, 2016

Dear Friends in Science:

It is a pleasure to welcome you to the 68th annual Delaware Valley Science Fairs (DVSF) and Competition at the Philadelphia Expo Center on Wednesday, March 30, 2016.

The Delaware Valley is the proud home of renowned centers of science education and research that have contributed to our 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.

On Wednesday, March 30, 2016, DVSF hosts an estimated 1,000 students from Southeastern Pennsylvania, Southern New Jersey and Delaware in a competition 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. DVSF winners may receive full and partial scholarships to institutions including Drexel University, University of the Sciences, and Harrisburg University, among other schools. They 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 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.

Best regards,

Ames 7. Kerne

James F. Kenney C Mayor



Welcome to the 68th 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.

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.

I am saddened to report the loss of Joyce Stein, a valued volunteer and past Regional Fair Director. Joyce and Jerry have been involved with DVSF for over 30 years. They started the Thomas Edison Science Fair which covered the counties of Camden, Burlington, and Gloucester in New Jersey. These counties are now covered by the Coriell Science Fair. We will miss her enthusiasm and dedication to our future scientists and engineers.

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 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 Pittsburgh did very well. They won 14 awards. Two students from DVSF were also named Finalists in the Broadcom MASTERS competition for middle school students. Another student from DVSF received the top award in the Siemens competition and is a Finalist in the Intel Science Talent Search. 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 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,

- Durts 1

Henry Disston PRESIDENT AND EXECUTIVE DIRECTOR

LETTER FROM THE PRESIDENT



A number of organizations and individuals have contributed gifts of cash, services and facilities to the 2016 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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Jacob M. Weiner Director's Award



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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 67th Intel International Science and Engineering Fair (ISEF), to be held this year in Phoenix, Arizona on May 8 through 13. 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, Belarus, Brazil, Bulgaria, Canada, Chile, China, Chinese Taipei, Columbia, Costa Rica, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia Republic, Germany, Hungary, India, Indonesia, Iraq Republic, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Luxembourg, Malaysia, Mexico, Moldova, New Zealand, Nigeria, Northern Ireland, Northern Mariana Island, Norway, Oman, 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.





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.

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

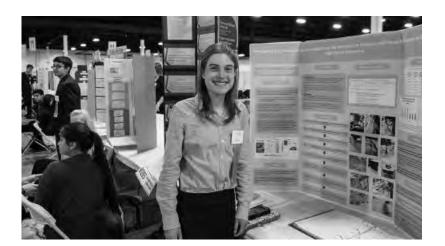
TWELVE REGIONAL FAIRS



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





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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 Phoenix, Arizona from May 8th - 13th, 2016. 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 2016 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 will

present its Science and Technology Scholar Award to every junior and senior who participate at DVSF. This award will cover up to the cost of tuition for four (4) Academic Years, less all federal and state grants and the first \$3,500 in the Federal Direct Student Loan each year.

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**



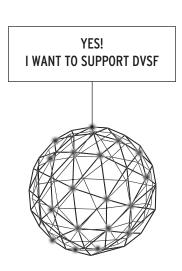
MEDALS, SCHOLARSHIPS AND AWARDS



DVSF FUNDRAISING PROGRAM

Delaware Valley Science Fairs, Inc. is a not-for-profit organization that relies totally on contributions of local companies, foundations and community contributions. All contributions are tax-deductible. A copy of the Delaware Valley Science Fairs, Inc.'s official registration and financial information may be obtained from the Pennsylvania Department of State by calling 1-800-732-0999. Registration does not imply endorsement. DVSF is a registered 501(c)3 organization.

Contributions that local companies, foundations and community sponsors give go directly to benefit the students' participation and do not pay for salaries. Inquiry-based/hands-on learning works! Please help us nurture our future scientists and engineers.



PLEASE COMPLETE THE FOLLOWING FORM AND MAIL CHECKS TO:

Mr. Henry Disston President and Executive Director Delaware Valley Science Fairs, Inc. Drexel University 236 Randell Hall, 3141 Chestnut Street, Philadelphia, PA 19104 For questions: 215-895-5840, disstonh@drexel.edu

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You can now make a gift through PayPal through our website at www.dvsf.org

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

CATEGORY DESCRIPTIONS

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

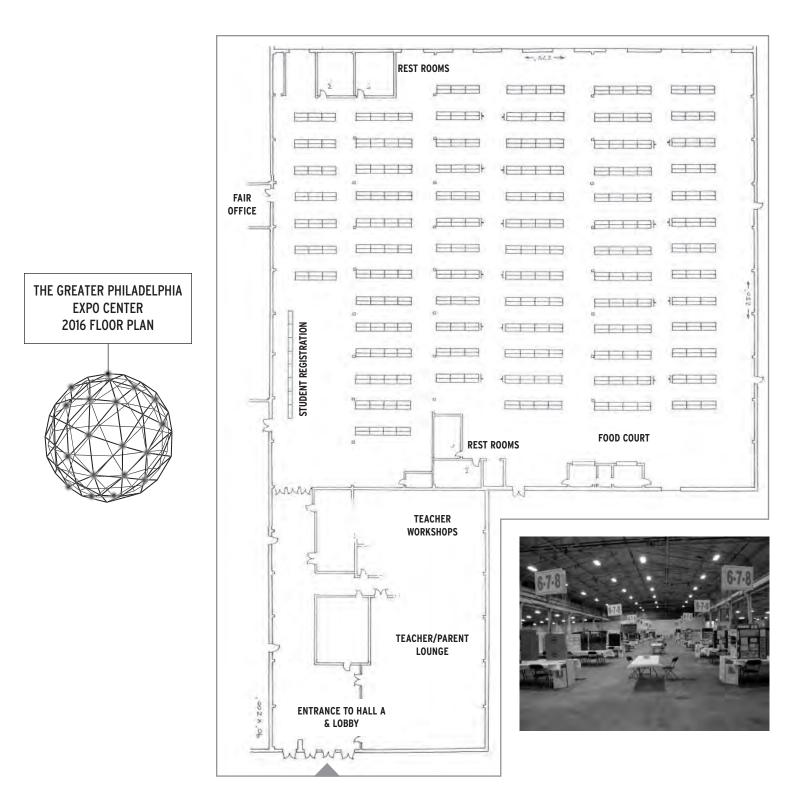
Study of animals – animal genetics, ornithology, ichthyology, herpetology, entomology, animal ecology, paleontology, cellular physiology, circadian rhythms, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.

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.



PRESENTOR

Emmaus High School

Parkland High School Christopher Gahman

Council Rock High School/North

Council Rock High School/North

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Terese Grateful

Terese Grateful

BEHAVIORAL/SOCIAL SCIENCES

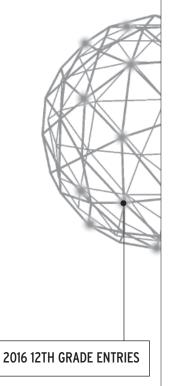
A0101	Stephen Wisser	Gender Difference in Resolving Cognitive Dissonance
A0102	Laura Olszanski	Deterring Rats From Homes Without Poisons or Traps
A0103	Kamal Bookwala	Stigmatization of Mental Illness
A0104	Emma Kwasnoski	Low-Functioning Autism and Video Modeling Perspectives
A0105	Maryrose McLaughlin	Using Leg Power for Brain Power: How Exercise Stimulates the Memory!

BIOCHEMISTRY

A0201	Yachana Panchal	The Role of miRNA Regulation in Stellate Cell Activation States	Central Bucks High School/West Mark Hayden
A0202	Emily Ecklund	Age and Type of Biomass: Effects on Gas Production	Bishop Shanahan High School Sister Kathleen Eagan
A0203	Ariel Yin	Aqueous Extract of Echinacea Purpurea Inhibits Melanoma Cell Growth	Cherry Hill High School East Nicholas Wright
A0204	Shika Veera	Effects of Allura Red AC on Gallus Embryology	Parkland High School Christopher Gahman
A0205	Gayatri Pillai	Effect of OTC Medications on Stomach Acid	Methacton High School Robert Helm
A0206	Nina Tang	Effect of Temperature on Bisphenol-A Release from Plastics	Germantown Academy Upper School Sarah Smith
A0207	Ashish Dahal	Elucidating the Role of the Epigenetic Modifier Ubiquitin Specific Peptidase 22 (USP22) in the Cytoplasm	Central High School Galeet Cohen
A0208	Khadijah Arsalan	Protection from e-Amyloid Peptide Toxicity in a Caenorhabditis elegans Model by Phenserine, an acetylcholinesterase inhibitor and Nigella Sativa	Toms River High School North Pamela Dixon-Kuhn
A0209	Kevin Ouyang	The Addiction-Related Effects of Splenda & Equal in Planarians Compared to Sucrose	Methacton High School Robert Helm

BOTANY

A0301	William Lin	Domestication History of PM-CBF and Functional Studies in Rice	High Technology High School Michael Roche
A0302	Heather Lavin	Introduction of Resistance in T. vulgaris by Pokeweed Antiviral Protein as Antagonist Against Alfalfa Mosaic Virus	Toms River High School North Pamela Dixon-Kuhn
A0305	Ilana Zeitze	Salt Tolerance in Grain Crops	Upper Dublin High School Joanne Lilliendahl
CHE	MISTRY		
A0401	lan Wietecha-Reiman	The Effects of Acid Rain on Organic and Inorganic Substances	Cheltenham High School Russell Wolff
A0402	Forest Platzer	Comparative Study of Bamboo and Reed as a Biofuel Feedstock	Central High School Galeet Cohen
A0403	Jimmy Olsen	Synthesis and Testing of Next Generation Antimalarials	LaSalle College High School Charles Cirelli



PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
A0404	Kishan Bhut	Using Computational Chemistry for Expedited Drug Discovery	Central Bucks High School/West Mark Hayden
A0405	Ashley Jia	The Identification of Significant Functional Groups of Protein Kinase B Inhibitors as Anticancer Agents	Central Bucks High School/West Mark Hayden
СОМ	PUTER		
A0501	Kunal Singh	Classification of Subtle Morphological Features for Individual Nuclei in Stained Glioma Tissue Slides	Central Bucks High School/West Michael Roche
A0502	Avyay Kuchibotla	Studying Compensatory Mutations Across Vertebrate Species	Central Bucks High School/West Mark Hayden
A0503	Milind Jagota	Analysis of Traffic Patterns Based on Information Feedback	Liberty High School Melissa Waldron
A0504	Ranwei Hu	WiFi RC Car with Smart Features	Abington Junior High School William Anderson
A0505	Brian Mata	Solving the Infinity Loop	Central High School Galeet Cohen
A0506	Somil Govani	Analysis and Classification of Images Using Trained Neural Networks	Central Bucks High School/West Mark Hayden
A0507	Tyson Trauger	Teaching Neural Networks to Play Tic-Tac-Toe	Lacey Township High School John Kuzan
A0508	Emma Clark	Using Machine Learning to Classify Synthetic Biomarkers and Blood Cells Passing Through a Sensor	High Technology High School Michael Roche
A0509	Hee Hoon Alexander Kim	School Swipe Cards - What Else Can They Do?	Germantown Academy Upper School Sarah Smith

EARTH & SPACE SCIENCES

A0601	Bobby Padilla	Determining the Relationship Between Sunspot Occurrences and Coronal Mass Ejections	Upper Darby High School Roseann Burns
A0602	Rasha Baig	The Presence of Antibiotic Resistant Bacteria in Soil	Central Bucks High School/West Mark Hayden
A0603	Matt Kelly	Investigation of the Outflow Channel at Mangala Vallis	Upper Darby High School Roseann Burns
A0604	Gabrielle Peralta	Temperature Variation in Developed and Non Developed Stream Reaches	Central Bucks High School/West Mark Hayden

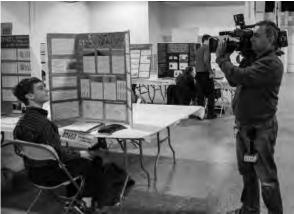
ENGINEERING

A0701	Hayden Hotham	Universal Blind Spot Detectors	Central Bucks High School/West Mark Hayden
A0702	Ethan Freiss	Designing a More Efficient Bridge	Bethlehem Catholic High School Anthony Messina
A0703	Erin Solomon	The Design of Flexible Plasmon-Based Solar Cells	Souderton Area High School Karen Frazier
A0704	Emily Fanning	Life's a Game to Play	Bishop Shanahan High School Sister Kathleen Eagan
A0705	Raj Patel	Harnessing Gravitational Potential Energy to Economically Produce an Air Current	Cherry Hill High School East Nicholas Wright

PRESENT	TOR	EXHIBIT	SCHOOL & SPONSOR
ENVI	RONMENTAL		
A0801	Vikrant Gokhale	Are All Algal Blooms Harmful?	Methacton High School Robert Helm
A0802	Jacqueline Bikker	The Effects of Early Exposure to 17 Beta-Estradiol on the Gonad Development and Occurrence of Ovotestes in Larval Zebrafish (Danio rerio)	The Marine Academy of Science and Technology Liza Baskin
A0803	Manus Shields	Effect of Shade Balls on Evaporation	Upper Darby High School Roseann Burns
A0804	Maria Dulin	Save the Lake	Bishop Shanahan High School Sister Kathleen Eagan
A0805	Emma King	Biofuel Efficiency: Food and Paper Waste	Vineland High School Marie Donato
A0806	Kyleigh Stevenson	The Effect of Nitrogen, Phosphorus, Potassium on the Growth of Plants	Penns Grove-Carneys Point High School Shannon Tyson
MATI	HEMATICS		
A0901	Nikhil Sharma	Using Dashboards to Predict NBA Salaries	Cherry Hill High School East Nicholas Wright
A0902	Malvin Prifti	Cryptocurrencies and Hashing Algorithms	Central High School Galeet Cohen
A0903	Bryce Orloski	The Mathematics of Flocking	Bethlehem Catholic High School Anthony Messina
A0904	Daniel Barychev	Study on Algorithmic Response Towards ECO Abnormality	Lower Moreland High School Joanne Fox
A0905	Melody Wu	The Power of Investment	Council Rock High School/North Terese Grateful
A0906	Calvin Chan	Evaluation of Multiple Comparison Procedures in Clinical Trials	Upper Dublin High School John Tralie
A0907	Milan Roberson	Extension and Generalizations of Fermat's Little Theorem to the Gaussian Integers	Bayard Rustin High School Joseph DiAntonio
MED	ICINE/HEALTH	1	
A1001	Yoshitaka Shibata	HFD Diabetic Mouse Shows Autophagic Disturbances as in Adiponectin Deficiency	North Penn High School Melody Leithold
A1002	Caspar Nguyen	Cognitive Impairment on Motor/Tracking Performance Post-Stroke	Central High School Galeet Cohen
A1003	Esha Kadakia	Detecting Chemical Presence with a Biosensor	Parkland High School Christopher Gahman
A1004	Anjali Prabhat	Bisphenol-A Exposure and the Occurrence of Estrogen Dominance	Freehold High School Leslie Withstandley
A1005	Kshama Parekh	HIV Prophylaxis - Ladies, Are You SkPrEPtical?	Cherry Hill High School East Helena Kwakwa
A1006	Ralph Lawton	The Smoking Gun: Toxicological Effects of Electronic Cigarettes on Epithelial Cells Using Air Liquid Interface (Year 2)	PA Leadership Charter School Jamie Castle
A1007	Jasmin Koshy	Do Antioxidants Really Keep You Healthy?	Northeast High School James Finley

PRESENT		EXHIBIT	SCHOOL & SPONSOR
MICF	ROBIOLOGY		
A1101	Ella Mullikin	Screening of Natural Products for HBsAg Inhibitors	Central Bucks High School/West Mark Hayden
A1102	Unnati Soni	On the Growth of Oral Microbes as a Result of Alcoholic vs. Non-Alcoholic Mouthwash	Youth Achievers' Committee Sherita Singleton
A1103	Michael Zhang	Design and Assembly of CRISPR/Cas9-based Virus- like Particles for Orthogonal and Programmable Genetic Engineering in Mammalian Cells	Conestoga High School Scott Best
PHYS	SICS		
A1201	Kenneth Kisby Jr.	Does the Presence and the Angle of a Winglet on an Airfoil Affect It's Property Lift?	The Pilgrim Academy Connie Reynolds
A1202	Avery Price	Investigation of Tibetan Singing Bowls	Souderton Area High School Karen Frazier
A1203	Atharv Gupte	Developing a Relationship Between Fermi Diversion Levels of Organic Substrates and Contact Success of Multiwalled Carbon Nanotubes	Parkland High School Christopher Gahman
ZOO	LOGY		
A1301	Catherine Marlin	Determining the Toxicity of Man-Made Fertilizers on Water Life	Our Lady of Mt. Carmel Homeschool John Marlin
A1302	Lauren Harper	Predicting Subclinical Mastitis in Bovine Using Individual Teat Strip Samples	Marine Academy of Tech/ Environmental Science John Wnek
A1303	Zack Moyer	Range Expansion of the Northern Cardinal	Souderton Area High School Karen Frazier
A1304	Jaspreet Bains	How Time of Day Effects the Population of Zooplankton	Northeast High School James Finley
A1305	Shloke Nair	Orthopedic Biomechanic Research on Age-Equivalent Models for Pediatric Long Bones	Upper Merion High School Peter Vreeland

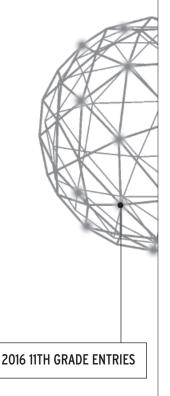




PRESENTOR

BEHAVIOR AL/SOCIAL SCIENCES

	VIORAL/SOCI		
B0101	Anna McCarter	The Effect of Speed Sign Modifications on Drivers' Speed	Charter School of Wilmington Thomas Fleetwood
B0102	Noelle Mlynarczyk	Effect of Different Types of Video Games on Reaction Time	Germantown Academy Upper School Sarah Smith
B0103	Caroline Fletcher	The Effect of Praise on a Growth Mindset and the Improvement of Test Scores	Emmaus High School Brent Landrum
B0104	Dustin Zhang	The Association Between Stress and Health in Teens	Upper Dublin High School Dawn Edelman
B0105	Amy Thompson	Exploring My Own Genetic History	Pennsville High School Robert Belding
B0106	Cassidy Power	The Effects of Blended Learning	Parkland High School Christopher Gahman
B0107	Kassie Chen	The Dangers of Distracted Driving	Methacton High School Robert Helm
B0108	Amanda Hopkins	Correlation Between Cardiorespiratory Fitness and Test Scores in Preadolescents	Springfield High School Monica Conlin
B0109	Yubang Chen	Investigation of a Risk Model to Prevent Teen Suicide	St. Andrew's School/Middleton, DE Betty Wang
B0110	Colleen Cochran	An Analysis of Ocean County's Opinions on Beach Management and Dunes to Protect the Shoreline and Coastal Communities	Marine Academy of Tech/ Environmental Science John Wnek
B0111	Nicolette Carbonetto	Will Classical Music Induce the Mozart Effect on Children, Benefitting Their Academics in the Special Education Classroom	Toms River High School North Pamela Dixon-Kuhn
B0112	Mary Connor	Perceptions of Dissonance by Musical Genre	Springfield High School Monica Conlin
B0113	Jason Large-Green	Reward or Punishment: Which is the Better Motivator?	Philadelphia Academy Charter High School Joyce Zeka
B0114	Olivia Herbstritt	An Analysis of Racial Bias When Evaluating Police Action	Haddon Township High Robert Herbstritt
B0115	Michael Szczechowski	A Literature Review of Cognitive Dissonance	Charter School of Wilmington Rose Lounsbury
B0116	Dominique Ballinger	The Effects of Videos on Human Physiological Changes	Springside Chestnut Hill Academy Scott Stein
B0117	Marquise Grant	Do Musicians Hear Better Than Non-Musicians?	Camden Academy Charter High School Madeline Fenner
B0118	Noelle Goudy	Effects of Sleep Deprivation on Alpha and Beta Wave Production	Springside Chestnut Hill Academy Scott Stein
B0119	Louisa Williams	Humor, Aging, and Memory	Delran High School Kimberly Brewster
B0120	Cecilia Rabayda	The Effects of Meshing on Reading Comprehension	Council Rock High School/South Matthew Ciaudelli



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PRESENTOR		ЕХНІВІТ	SCHOOL & SPONSOR
BIOC	HEMISTRY		
B0201	Megan Kolbe	Strength of Disulfide Bonds in Human Antibodies	Kolbe Homeschool Kathleen Kolbe
B0202	Advaitha Anne	Investigating Mechanisms for TAV Aggregation: The Expression and Purification of 4R TAV	Charter School of Wilmington Rose Lounsbury
B0203	Josiah Greene	The Effects of pH, UV Exposure, and Temperature on Saccharomyces cerevisiae	Chester County Homeschool Margaret Greene
B0204	Hannah Clarke	Titration Study on the Effect of UV Radiation on Glutathione	Springside Chestnut Hill Academy Ann Zalasky
B0205	Margaret Palko	Don't Smile About Sugar	Methacton High School Robert Helm
B0206	Rachel Swope	Investigating the Mechanisms of Aminothiazoles in Selective Inhibition of Liver Cancer Derived Cell Lines	Central Bucks High School/West Mark Hayden
B0207	Anushka Rege	The Truth About Hidden Sugars in Your Food	Parkland High School Christopher Gahman
B0208	Megan Gallagher	Drugs and Genetics	Bishop Shanahan High School Sister Kathleen Eagan
B0209	Alexis Schneider	Combating Post-TBI Depression	Upper Dublin High School Joanne Lilliendahl
B0210	Gillian Teitelbaum	The Effect of Vitamin D3 on the Lifespan of eri-1 C.elegans	Biotechnology High School Julie Nowicki
B0211	Victoria Tiefenthaler	The Effect of Caffeine and 5-HTP on the Plasticity of Mutated and Wild Type Caenorhabditis elegans during Chemotaxis	Biotechnology High School Ann MacLean
B0212	Humna Chaudhry	The Effects of Soylent on Drosophila Development and Fertility	Central High School Galeet Cohen
B0213	Albert Yuan	Removing Rust Using Exoelctrogenic Bacteria	Charter School of Wilmington Glenn Heffner
BOTA	NY		
B0301	Yulong He	Determining the Accuracy of Foods Labeled GMO Free	Springside Chestnut Hill Academy Scott Stein
B0302	Mitchell Fite	Hydroponics: Better Agriculture	Council Rock High School/South Matthew Ciaudelli
B0303	Siddharth Iyer	A Comparative Study of Application Method of Jasmonates and Salicylates on Immune Response of Arabidopsis thaliana Inoculated with Fusarium oxysporum	Biotechnology High School Julie Nowicki
B0304	Abigail Graham	Electrolytes Take Plants to New Heights	Temple University Math Science Upward Bound Terrence Seals
B0305	Olivia Cantrell	Influence of Light Wavelength on Growth of Lettuce	Central Bucks High School/West Mark Hayden
B0306	Ruiming Wu	Plant Growth and the Concentration	Springside Chestnut Hill Academy

of Soap Solutions

Post-Harvest Fruit Decay

Examining Prevention Methods for

Inactivation of Salmonella Enterica on Tomatoes

Role of Arabidopsis thaliana Volatile Organic

Compounds in Intraspecific Communication

B0307

B0308

B0309

Ojas Patel

Catherine Yu

Connor Sweeney

Springside Chestnut Hill Academy Ann Zalasky

Parkland High School Christopher Gahman

Charter School of Wilmington Rose Lounsbury

Charter School of Wilmington Tim Carr

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
CHEN	AISTRY		
B0401	Jacob Bauldock	Applying a 2**3 Factorial Design to the Diffusional Effects of an Electrolytic Cell	Kids for Chemistry Gerald Bauldock
B0402	Andy Chen	Effects of Battery Output voltage on Nicotine and the Tobacco-Specifi nitrosamine N'-Nitrosonornicotine in Electronic Cigarettes	Charter School of Wilmington Rick Schuder
B0403	Braden Cody	Thermal Annealing Optimization of 2nd Generation Solar Cells	Germantown Academy Upper School Sarah Smith
B0404	Katya Farber	What is the Best Container to Store Your Medicine?	Lower Moreland High School Joanne Fox
B0405	Jessica Trotter	Cold Pack Chemistry	Upper Darby High School Roseann Burns
B0406	GianCarlo Seixas	Determination of Energy in Various Types of Biodiesels	Liberty High School Melissa Waldron
B0407	Ceren Alici	Corrosion in a Can	Liberty High School Melissa Waldron
B0408	Alexandra Funk	I See the Light	Philadelphia Academy Charter High School Joyce Zeka
B0409	Kayla Mitchell	Determining the Effects of Soil pH on Calcium Carbonate Concentration in M. terrapin Eggs	Marine Academy of Tech/Environmental Science John Wnek
B0410	Sneha Sharma	Biofuels from Coffee Grounds and Christmas Trees	Holmdel High School Josephine Blaha
B0411	Anjali Nambrath	Methane Production by Composted Food Waste as a Source of Sustainable Energy	High Technology High School Michael Roche
B0412	Shreya Chodisetty	Effect of Organic Compounds on the Absorption of Organic Contaminants by Polymeric Resin	Central Bucks High School/West Mark Hayden
B0413	Christopher Walakovits	The Decomposition of Vitamin C	Bethlehem Catholic High School Anthony Messina

COMPUTER

B0501	Franklin Okpala	Analysis of Keratin Protein using BLAST (Basic Local Alignment Search Tool)	Frankford High School John Gibney
B0502	Owen Ritz	Machine Learning for Real Time Economic Data from Twitter	Germantown Academy Upper School Sarah Smith
B0503	Michael Lan	Developing Artificial Intelligence for Stock Prediction	Charter School of Wilmington Regina Fody
B0504	Janice Noh	Bud - Turning Over a New Leaf for Occupational Therapy Patients	Cherry Hill High School East Jason Noh
B0505	Gavin Rees	Simulating Brain Development for Neural Network Compression	Germantown Academy Upper School Sarah Smith
B0506	Daniel Schwartz	Mobile GPS: Navigating the Future	Cherokee High School Michael Stanley

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
EART	TH & SPACE SC	CIENCES	
B0601	Shuhan Bao	Crashing Mars with an Asteroid to Create a Dense Secondary Atmosphere	The Baldwin School Jeffrey Goldader
B0602	Saviona Whack	Plant Food or Planet Poison?	Temple University Math Science Upward Bound Terrence Seals
B0603	Mark Baker	The Metabolic Alteration of Rudbeckia hirta to Reduce the Effects of Anthropogenic Carbon Dioxide on Aquatic and Terrestrial Systems	Marine Academy of Tech/Environmental Science John Wnek
B0604	Raghed Kurbaj	Determining Size of Earth's Core Using Recorded Seismic Activity Data	Upper Darby High School Roseann Burns
B0605	Zachary Kirk	Mars Colonization Probability: An Exploration of Planetary and Human Requirements	Downingtown STEM Academy Christine Dinger
B0606	Courteney Monchinski	Deflecting Asteroids With Impact Projectiles	Marine Academy of Tech/Environmental Science John Wnek
B0607	Marie Jean-Marie	The Effect of Grey Water on Plant Growth	Temple University Math Science Upward Bound Terrence Seals
B0608	Michaela Lozada	Investigation of Ammonite Extinction vs. Nautilus Subsistence	Marine Academy of Tech/Environmental Science John Wnek

ENGINEERING

B0701	Rajveer Mann	Analysis of the Effects of Varying Winglet Cant Angles on Airfoil Performance	Charter School of Wilmington David Stover
B0702	Chloee Kleespies	Invitro Insulin Regulation	Bishop Shanahan High School Sister Kathleen Eagan
B0703	Sruthi Srinivasan	Use of Laser Induced Breakdown Spectroscopy to Determine the Chemical Composition of Quarry Stones for Roadway Construction	Washington Township High School Beena Sukumaran
B0704	Michele Farina	Something to Talk About: Modeling the Vocal Cords and Elasticity Correlation	Bishop Shanahan High School Sister Kathleen Eagan
B0705	Christian Albert	Steam: an Economical, Sustainable, Source of Energy	Philadelphia Academy Charter High School Joyce Zeka
B0706	Nick Doyle	Concussions in Soccer: Is Better Headgear the Answer?	Central Bucks High School/West Mark Hayden
B0707	Kian Jamasbi	Assessing the Utility of 3D Printed Satellite Components	Germantown Academy Upper School Sarah Smith
B0708	Swathi Pavuluri	A Novel Device for Eliminating Airborne Pathogens	High Technology High School Michael Roche
B0709	Jessica Olsen	Optimal Substitution of Aggregate to Produce an Economically Viable Alternative to Traditional Concrete Mixtures	Marine Academy of Tech/Environmental Science John Wnek
B0710	Turner Emery	Can Dew: Catching Dew Using Collars Made from Recycled Cans to Aide Crop Survival	Malvern Preparatory School Anna Geider
B0711	Christina Foley	Pitch Perfect: Optimizing Wind Energy	Philadelphia Academy Charter High School Joyce Zeka
B0712	Benjamin Xing	Analyzing the Effects of Varying Wind Turbine Blade Characteristics on Electrical Generation	Charter School of Wilmington Mr. Lightfoot
B0713	Kullen Renaud	3D Stereoscopic Projection on a Parallax Barrier	Renaud Christian Academy - Home School Judie Renaud

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
B0714	Michael Chinn	An Investigation of Traffic Intersections	Wissahickon High School Christine Brandt
B0715	Jazmin Brockman	Roller Coasters: Speed & Amusement	Temple University Math Science Upward Bound Terrence Seals
B0716	Jennifer He	A Determination of the Optimal Speed of a Novel Oleophilic Oil Skimmer	Holmdel High School Josephine Blaha
B0717	Alyssa Decker	Large Scale Nanobot: A New Treatment Option to Eradicate Cancer Cells	Springfield High School Monica Conlin
B0718	Ethan Zhao	3D Printing a Cost Effective Prosthetic Arm	Germantown Academy Upper School Sarah Smith

ENVIRONMENTAL B0801 Celine Yu Investigating Urban Air Pollution

B0801	Celine Yu	Investigating Urban Air Pollution	Central High School Galeet Cohen
B0802	Danny Glickman	Soybean Plants for Phytoremediation and Biofuel Production	Central Bucks High School/West Mark Hayden
B0803	Reeves Balderson	Impact of Increasing Surface Area on the Performance of Localized Solar Driven Evaporation in Solar Desalination	Moorestown High School Sean Watson
B0804	Adam Konkol	Accelerated Bioremediation of Environmental 2,6-dichlorobenzonitrile Using Bacillus thuringiensis	Biotechnology High School Danielle Jensen
B0805	Corson Chao	Eco-friendly Building Material Alternative to Portland Cement & Concrete	North Penn High School Melody Leithold
B0806	Julianna Ohnjec	The Effects of Microwaves on Plant Germination and Growth	Collegium Charter School Katelyn Tobin
B0807	Rekha Dhillon-Richardson	Impacts of Idling, Carbon Monoxide and Sulfur Dioxide Emissions on Student Health	Springside Chestnut Hill Academy Scott Stein
B0808	Le Trinh	Effect of Salinity on Thermal Expansion of Sea Water	Upper Darby High School Roseann Burns
B0809	Russell Kamback	Water Purification of Organic Waste Using Electrocoagulation	Holmdel High School Josephine Blaha
B0810	Matthew Braun	The Purefect Way to Purify H2O	Cherry Hill High School East Nicholas Wright
B0811	Mei-Lin Zhao	Effect of Microbubbles on the Reflection of Light on Seawater	Upper Darby High School Roseann Burns
B0812	Carina Tse	Catalyzing Solar Cell Energy Harvesting by Computational and Quantum Engineering	Methacton High School Robert Helm
B0813	Katherine Long	The Environmental Effects of Flood Prevention Systems	Charter School of Wilmington Rose Lounsbury
B0814	Kayla Gantz	Drinking Water Quality at Various Well Depths	Woodstown High School - Pilesgrove High School Chris Rickard
B0815	Eliza Brody	The Effect of Ultraviolet Radiation on the Fermentation and Growth Rates of Yeast	Springside Chestnut Hill Academy Scott Stein
B0816	Cissy Ming	Use of Concrete in Nitrate Filtration	Conestoga High School Scott Best

PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
MATH	HEMATICS		
B0901	Tengqin Han	Development of a Predictive Model to Prevent Financial Crisis	Westtown School Roger Mecouch
B0902	Sook-Hee Evans	Analyzing the Influence of Fractals in the Stock Market	Germantown Academy Upper School Sarah Smith
B0903	Joshua Pagan	Hardy Weinberg Mathematical Model	Frankford High School John Gibney
B0904	Jorgji Ndrecka	Statistical Analysis of the Frequency of Colors of M&M in a Bag	Northeast High School James Finley
B0905	Nethra Parasuram	Comparison of Caesarean Section Rates	High Technology High School Michael Roche
B0906	Ariana Bhatia	The Correlation Between Environmental Pollution and Non-Lung Cancers	Freehold Township High School Mohit Bhatia
B0907	Carlo Duffy	Estimating the Prevalence of Food Allergy in Children: A Monte Carlo Simulation Based on a Logistic Regression Model Using Public Data	Holy Ghost Preparatory School Amanda Coopersmith
B0908	Abbey Liu	Finding Pythagorean Quadruples Using Fibonacci Numbers	Upper Darby High School Roseann Burns
B0909	Gaurav Sharma	Predictive Modeling of the Factors that Influence Presidential Elections	High Technology High School Michael Roche
B0910	Kiera Peterson	Convexity: Predicting the Process of Bonds	Bethlehem Catholic High School Anthony Messina
B0911	Vivek Gopalan	A Robust Optimization Approach for Selecting Urban Fire Engine Company Locations	Methacton High School Robert Helm

MEDICINE/HEALTH

B1001	Jack Traina	Genetic Inheritance: A Predisposition for Stroke?	Central Bucks High School/West Mark Hayden
B1002	Sunayana Jampanaboyana	Microtubule Depolymerization	Parkland High School Christopher Gahman
B1003	Jahnavi Kishore	Exosomes From G-Coupled Receptor Kinase (GRK2) Knockdown Cells Suppress Fibroblast Apoptosis - Potential Mechanism by Which GRK2 Inhibition Provides Cardio-Protection After Myocardial Infarction	Conestoga High School Scott Best
B1004	Nina Cheng	Global Assessment of Osteoarthritis by Novel PET Imaging Techniques	Upper Dublin High School Dawn Edelman
B1005	Nicholas Fotopoulos	A Novel Cancer Remedy: Tricarboxylic Acid Cycle Inhibition in Saccharomyces cerevisiae by Treatments of Reduced Nicotinamide Adenine Dinucleotide	Biotechnology High School Julie Nowicki
B1006	Shayan Farmand	Novel Tol C Inhibitors: Computer-aided Drug for MDR-causing Efflux Pumps	Methacton High School Robert Helm
B1007	Ashley Cooper	Save the Neurons: Spectral Imaging of Brain Pathology	Cherry Hill High School East Nicholas Wright
B1008	Shreyaa Kassim	The Connection Between Parkinson's Disease and Geographic Location	Council Rock High School/North Terese Grateful
B1009	Aman Reddy	The Effect of Titanium Dioxide on Fruit Flies	Council Rock High School /North Terese Grateful
B1010	Darien Branche	The Effects of Sugar and Sugar Substitutes on Planarian Worms	Philadelphia High School for Girls Emily McGady-Greenleaf

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
B1011	Alexandra Winant	Delaying Locomotor Function in Parkinson's Disease	Biotechnology High School Julie Nowicki
B1012	Pooja Ramprabhu	Haemolytic Transfusion Reaction	Parkland High School Christopher Gahman
B1013	Richard Niu	Understanding of Cancer via 3D Chromosome Reconstruction	Germantown Academy Upper School Sarah Smith
B1014	Trevor Robbins	What is the Effect of Glucosamine Concentration on the Regeneration of Eyespots in Dugesia Tigrina?	Robbins Homeschool Carole Robbins

MICROBIOLOGY

B1101	Neda Mahjour	Antimicrobial Effects of Various Dental Cements	Souderton Area High School Karen Frazier	
B1102	Jessica Intile	Analysis of the Endosymbiotic Theory Using BLAST Bioinformatics Technology	Marine Academy of Tech/Environmental Science John Wnek	
B1103	Jose Avila	The Effect of Soil Bacteria Inoculations on the Power and Current of Microbial Fuel Cells (MFC's)	Charter School of Wilmington Rose Lounsbury	
B1104	Alan Balu	Immunohistochemical and Stereological Analysis of Optogenetically Modified Neurons in the Nigrostriatal pathway	Charter School of Wilmington Thomas Fleetwood	
B1105	Jude Dartey	Does Selection for Triple Antibiotic Resistance Lead to Higher Mutation Rates in E.coli Populations?	Central High School Galeet Cohen	
B1106	Sydney Coldren	Probiotics or Nobiotics: The Truth About Probiotic Pills	Delran High School Kimberly Brewster	
B1107	Alexandra Welsh	The Effects of Roundup (Glyphosate) on Healthy Gut Bacteria	Marine Academy of Tech/Environmental Science John Wnek	
B1108	Rachana Mudipalli	The Identification of ATPase Activity Regulation in Tetrahymena thermophila: A Step Towards Understanding the Function of the Malarial ATP Synthase	Downingtown STEM Academy Christine Dinger	
B1109	Lisa Zhao	Biofuel Fermenters	Springside Chestnut Hill Academy Lisa Zhao	
B1110	Anna Morrione	The Effect of Insulin Stimulation on Cells Expressing Either IR-A or IR-B	Charter School of Wilmington Thomas Fleetwood	
B1111	Harrison Whitman	Potentiation of Antibiotics against Resistant E. coli in vitro using Copper(II) Sulfate	Biotechnology High School Julie Nowicki	
B1112	Vaibhav Gupta	Fibroblast Activation in the Presence of Bacterial Infections	Methacton High School Robert Helm	
B1113	Simon Chen	Common Antibiotics' Effects on Gram-Positive and Negative Bacteria	Parkland High School Christopher Gahman	
B1114	Harleen Suri	Effect of Trimeresurus Albolabris Venom on Glioma Cells	Methacton High School Robert Helm	
PHYSICS				
B1201	Sarah Phillips	The Behavior of Comets as They Approach the Sun	Lacey Township High School John Kuzan	
B1202	Samuel Czupich	Method to Improve Efficiency of Solar Energy	New Hope Solebury High School Kathleen Czupich	
B1203	Alysa Dinh	The Power of Electromagnetism: The Number of Coils vs. Voltage	Academy of Notre Dame de Namur Emily Giannantonio	

PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
B1204	Tyler Hook	Electromagnetic Accelerator	Germantown Academy Upper School Sarah Smith
B1205	Joanna Vasiu	Bernoulli's Principle	Philadelphia Academy Charter High School Joyce Zeka
B1206	Chris Vokes	Aerodynamics of Ultimate Frisbee	Philadelphia Academy Charter High School Joyce Zeka
B1207	Ricardo Vargas	My Water Just Broke: Exploring the Surface Tension of Water	Mariana Bracetti Academy Charter School Andrew Boglioli
B1208	Roy Kim	Analyzing the Distortion of Bone-Conduction Frequencies	Biotechnology High School Micheal Chin
Z00	LOGY		
B1301	Lizzie Wilson	The Effect of Milkweed Variety on Growth of Monarch Larvae	Souderton Area High School Karen Frazier
B1302	Deanna Long	Ultraviolet Butterflies	Temple University Math Science Upward Bound Terrence Seals
B1303	Samantha Orndorff	Maintaining Sustainable Fisheries: An Assessment of Squalus acanthias Populations Off the New Jersey Coast by Both Physical and Genetic Analysis	Marine Academy of Tech/Environmental Science John Wnek
B1304	Sanjna Shelukar	Effects of Vitamins ADEK on Fruit Fly Fertility	Wissahickon High School Mary Jo Burgoyne
B1305	Hallie Lazaro	The Optimal Substrate Conditions for Ilyassoma obsoleta Colonization in the Barnegat Bay	Marine Academy of Tech/Environmental Science John Wnek
B1306	Chase Law	Ain't No Monkey Business	Bishop Shanahan High School Sister Kathleen Eagan



PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR			
BEHA	BEHAVIOR AL/SOCIAL SCIENCES					
C0101	Arathi Pillai	The Correlation Between First Born Children and Health Anxiety	Springfield High School Monica Conlin			
C0102	Jake Rattigan	Take Five: Adolescents & Lying	Woodstown High School - Pilesgrove High School Chris Rickard			
C0103	Nur Bookwala	The Effects of Intent on Perceptions of Harmful Behaviors	Parkland High School Christopher Gahman			
C0104	Corryn Monaco	The Effects of Stress on Sleep	Academy of Notre Dame de Namur Emily Giannantonio			
C0105	Roman Smith	Hear Your Feelings	Upper Dublin High School Dawn Edelman			
C0106	Cynthia Syren	Investigating the Role of Identifiers in Frequency of Stops, Questions, and Frisks (New York, 2014)	Holmdel High School Josephine Blaha			
C0107	Linara Faiikova	Do People Take Longer When Someone is Waiting?	Northeast High School James Finley			
C0108	Sophie Kallenbach	The Effect of Child Gender on Literary Interactions with Parents	Germantown Academy Upper School Sarah Smith			
C0109	MacKenzie Spearing	Determining Side Dominance in Children	Villa Joseph Marie High School John Boyle			
C0110	Jacob Witman	The Effects of Video Games on the Human Brain	Emmaus High School Debra Barthold			
C0111	Adriana Nowrouzi	The Effects of Short-Term Memory on Colored Paper	Marine Academy of Tech/ Environmental Science John Wnek			
C0112	Anne Zou	The Effect of the Presence of a Rival on the Overall Race Performance of a Runner	High Technology High School Michael Roche			
C0113	Christie Campbell	Leaning on Social Constructs	Philadelphia Academy Charter High School Joyce Zeka			
C0114	Samuel Geiser	Automatic Detection of Changes in Emotion Using Text Data	Methacton High School Robert Helm			
BIOC	HEMISTRY					
C0201	Jackie Lanzalotto	Regulation of CRABP2 as a Biomarker for Ovarian Cancer	Academy of Notre Dame de Namur Emily Giannantonio			
C0202	Jonathan Arditi	Isolation and Quantification of Nucleic Acids in Common Fruits and Vegetables	Owen J. Roberts High School Mark Hofer			
C0203	Maura Aliprando	The Effect of Deoxygenation on Blood Flow in Sickle and Non-Sickle Blood	Central High School Galeet Cohen			
C0204	Melina Muthuswamy	The Effect of Natural COX Inhibitors vs. Ibuprofen on the Lifespan of Brassica rapa	High Technology High School Michael Roche			
C0205	Zach Michaelson	Do Different Methods of Storage Affect	Upper Dublin High School			

Vitamin C Concentration in Oranges?

Study of Alzheimer's Disease Using

Alcohol, Acetaldehyde and Cancer

Soy Phytoestrogens' Effect on

Lumbriculus variegatus

Drosophila Melanogaster

Upper Dublin High School Dawn Edelman

Academy of Notre Dame de Namur Emily Giannantonio

Parkland High School Christopher Gahman

The Baldwin School Jeffrey Goldader

2016 10TH GRADE ENTRIES

C0206

C0207

C0208

Emily Apadula

Sabrina Rustgi

James Kim

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
C0209	Peter Michaelson	Ripening Fruit Project	Upper Dublin High School Dawn Edelman
C0210	Samantha Holder	Using Gel Electrophoresis to Separate Colors	Bridgeton High School Claudia Angle
C0211	Rita Vought	Comparison of Dye Migration Distances Traveled in Gel Electrophoresis Chambers	High Technology High School Michael Roche

BOTANY

C0301	Nayeon Kwak	Panegyric Plant Psychology	Upper Dublin High School Dawn Edelman
C0302	Vriddhi Vinay	Effects of Irradiation on Radish Seed Germination	Easton Area High School Penny Diehl
C0303	Lauren Dietzler	Radiation in the Nation: The Different Effects of UV Light or Microwave Radiation on Seed Germination	Academy of Notre Dame de Namur Emily Giannantonio
C0304	Marissa Mycek	The Effect of Microwave Radiation on Seed Germination	Academy of Notre Dame de Namur Emily Giannantonio
C0305	Daniel Schreiber	Does Inversion Affect Iron Concentration in Spinacia oleracea?	Marine Academy of Tech/Environmental Science John Wnek
C0306	Jacob Lodge	Drill It, Don't Spill It	Woodstown High School - Pilesgrove High School Chris Rickard
C0307	Chloe Yanush	Weeds Be Gone!	Woodstown High School - Pilesgrove High School Chris Rickard
C0308	Charlotte Bradley	Ethanol, Vitamin C, and CoQ10's Effect on Beet Root Cell Membranes	Academy of Notre Dame de Namur Emily Giannantonio
C0309	Sophia Swartz	Molecular-Based Genotyping of Lactuca sativa for Accelerated Genotypic Selection	Central Bucks High School - South Brian Testa
C0310	Valerie Yip	The Effects of Air Flow on the Development of Tomato (Solanum lycopersicum) Stems	High Technology High School Michael Roche
C0311	Yee Chan	Testing the Effects of Drought on Chlorophylum Comosum by Changing the Field Capacity	Parkland High School Christopher Gahman
C0312	Ifeoluwa Ashiru	Can Aspirin Have an Effect on a Plant?	Carver Engineering and Science Amit Basu
C0313	Jennifer Driscoll	The Effect of Biochar vs. Biochar Combined with Bat Guano on the Growth of Lettuce Plants	High Technology High School Michael Roche
C0314	Michelle Ampofo	Allelopathy in Lettuce Seeds	Cheltenham High School Russell Wolff

CHEMISTRY

C0401	Juliana Lynch	Factors that Affect the Surface Tension of Water	Academy of Notre Dame de Namur Emily Giannantonio
C0402	Caroline Monefeldt	Fragrance vs. Alcohol in Perfume	Woodstown High School - Pilesgrove High School Chris Rickard
C040	Jarin Akther	DIY Bubbles!	Philadelphia High School for Girls Emily McGady-Greenleaf
C0404	Victoria Hoffner	Comparing the Efficiency of Biofuels to Standard Fuels	Upper Dublin High School Dawn Edelman

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR		
C0405	Urvi Patel	Salt Bridge Over Electrified Waters: How Electricity Changes pH?	Middle Township High School Anne Berkey		
C0406	Gabrielle Soares	Does the Concentration of a Solution Effect Evaporation Rate?	Bethlehem Catholic High School Anthony Messina		
C0407	Sarah Telsey	Evaporation Rates of Different Liquids	Woodstown High School - Pilesgrove High School Chris Rickard		
C0408	Asawir Abdelgadir	Controlling Crystalization	Northeast High School James Finley		
C0409	Lea Mangifesta	Effect of Acidic Solutions on Varying Types of Concrete	Upper Dublin High School Dawn Edelman		
C0410	Farran Dougherty	Effects of pH on Rates of Corrosion	Academy of Notre Dame de Namur Emily Giannantonio		
C0411	Jeffrey Coleman	What Would be the Effect on Coated and Non-Coated Steel Coupons in a Simulated Oil Field Environment? Also Demonstrate the Use of Anodes as a Method of Protecting Pipes from Corrosion	Easton Area High School Penny Diehl		
C0412	Avery Cunningham	Optical Activity in Chiral Molecules	Lacey Township High School Alexandra York		
CO413	Pilyra Lee	Why Do Fruit and Vegetables Turn Brown?	Bridgeton High School Claudia Angle		
C0414	Michael Grantham	Using Enthalpy of Solution to Stimulate Shape Memory Polymers	Marine Academy of Tech/Environmental Science John Wnek		
C0415	Danielle Hensel	Molecular Changes in Tendon Healing Evaluated by Infrared Spectral Imaging	Central Bucks High School/West Mark Hayden		
C0416	Seungkwon Son	Efficient Method of Producing Large Quantities of of Graphene Through Shear Exfoliation	Parkland High School Christopher Gahman		
C0417	Riley Nevil	Sands in Time: Bacteria Colony Growth in Two Beaches Over 22 Weeks	Marine Academy of Tech/Environmental Science John Wnek		
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COMPUTER

C0501	Hyunji Kim	Operator-Independent Tumor Volume Measurement on MRI Images	Germantown Friends School Mattew Zipin
C0502	Arihant Jain	Comparison of Performance by Operating Systems: Windows and Linux	High Technology High School Michael Roche
C0503	Ananth Dandibhotla	Med Helper: A Smart Tool to Research and Track Medications	Methacton High School Robert Helm
C0504	lan Kuo	Object Categorization Using a Robot	Central Bucks High School/West Mark Hayden
C0505	Achyut Reddy	Determining Cardiac Volumes and EF from MRI Scans Using Machine Learning	Methacton High School Robert Helm
C0506	Peter Luba	An Analysis of the Language Usage in Media: Impacting the Outcomes of Elections	Methacton High School Robert Helm
C0507	Clark Wang	The Effect of Interrupted Usage on Battery Percentage of Smartphones	High Technology High School Michael Roche
C0508	Lacey Thomas	Does Computer Based Testing Affect Students' Scores?	Woodstown High School - Pilesgrove High School Chris Rickard

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR			
EARTH/SPACE SCIENCES						
C0601	Daniel Gordon	Determining the Relationship Between Period and Luminosity for Cepheid Stars	Upper Darby High School Roseann Burns			
C0602	William Chen	Design and Validation of a Novel, Low-Cost Air Quality Monitoring System	Methacton High School Robert Helm			
C0603	Ahmad Ibrahim	The Effects of Different Fertilizers	Temple University Math Science Upward Bound Terrence Seals			
C0604	Eric He	Quantifying the Intensity of Solar Flares by Sigmoidal Pattern and Magnetic Complexity Analyses	High Technology High School Michael Roche			
C0605	Kerri McBride	Investigating the Efficiency of Thermoelectric Generators in Capturing the Energy Created from Decomposing Organic Material	McBride Homeschool Carolyn McBride			
C0606	Galen Farmer	The Visibility of Black Hole Accretion Disks	Upper Darby High School Roseann Burns			
C0607	Jane Furgiuele	Is it Feasible to Inhabit Mars?	Central Bucks High School/West Mark Hayden			
C0608	Stephanie Zhang	The Power of Heat Under Our Feet	North Penn High School Melody Leithold			
ENGI	ENGINEERING					
C0701	Matthew Siracusa	Real-Time Asbestos Detection in Air	Devon Preparatory School			

0101	Matthew Shacusa	Real Hille Asbestos Detection III All	Roger Mecouch
C0702	Benjamin Metz	Rotating Bed 3D Printer	Central Bucks High School/West Mark Hayden
C0703	Isabelle D'Amico	Testing Apparatus for the Volumetric Reduction of High-Density Polyethylene Waste for Recycling Purposes	Council Rock High School/South Matthew Ciaudelli
C0704	Samantha Kantner	The Effect of Wind Turbine Wake on Adjacent Turbines	Upper Darby High School Roseann Burns
C0705	Vikram Pandian	Smartphone-Based Point-of-Care Device for Rapid Molecular Diagnostics with Surveillance Using a Disease Density Map	Parkland High School Christopher Gahman
C0706	Alice Lai	The Application of an Ultraviolet and Infrared Wavelength Filter on a-Si Solar Cell Output	High Technology High School Michael Roche
C0707	Pradyot Yadav	Highly Efficient Smart Lighting System	North Penn High School Melody Leithold
C0708	Thomas Caltabiano	Penetration Power	Woodstown High School - Pilesgrove High School Chris Rickard
C0709	Juan Vera	Suspension vs. Beam Bridge	Bridgeton High School Claudia Angle
C0710	Lori Zhang	Designing a Cost-Effective Device to Decrease the Risk of Vesicovaginal and Rectovaginal Fistulae During Labor	High Technology High School Michael Roche
C0711	Elektra Benkrid	Clean Safe Energy	The Perkiomen School Melinda Irven
C0712	Sophia Breslin	Biodegradable Plastic Bags Made from "Genus Musa" Peel Waste	Christopher Dock High School Kathy Holden
C0713	Jamal Hampton	Thickness of Affection	Science Leadership Academy Steph Sessa
C0714	Sarah Johnson	Frio Freeze	Wise and Pure Senior High School Audrey Johnson

PRESENT	TOR	EXHIBIT	SCHOOL & SPONSOR		
ENVIRONMENTAL					
C0801	Sydney Iseminger	Local Drains, Oceanic Effects	Bishop Shanahan High School Sister Kathleen Eagan		
C0802	Hannah Lindstrom	Can Water Plants Promote Pesticide Breakdown?	Woodstown High School - Pilesgrove High School Chris Rickard		
C0803	Sejal Suri	Removing Microplastics from Water to Protect the Environment	Methacton High School Robert Helm		
C0804	Ira Patel	Renewable Energy From Waste	Parkland High School Christopher Gahman		
C0805	Amanda Plichta	SODIS/Moringa Oleifera - A Novel Approach To Water Purification In Developing Countries	Council Rock High School/South Matthew Ciaudelli		
C0806	Hilary Liu	Quantitative Greenhouse Emission & Absorption Model for the Baldwin School	The Baldwin School Jeffrey Goldader		
C0807	Aryaman Khandelwal	Testing the Efficiency of a Novel Method for Fluoride Absorption Using Hybrid Anion Exchange Resins with Zirconium Oxide Nanoparticles	Parkland High School Christopher Gahman		
C0808	Gail Sloh	Looking Downstream: Could Nanosilver in Consumer Products Affect Pond Life?	George Washington High School Anita Abraham		
C0809	Andrew Chen	Are All Solar Cells Created Equal?	Moorestown High School Sean Watson		
C0810	Collin Schmidt	The Use of Beet Juice as an Anti-freeze Agent	Central Bucks High School/West Mark Hayden		
C0811	Miles Hanamirian	Naturally Neutralizing Soils Affected by Chemical Munitions	Germantown Academy Upper School Sarah Smith		
C0812	Alvin Tong	The Effect of Humidity on Solar Panels	Upper Darby High School Roseann Burns		
C0813	Allen Zhang	The Effectiveness of Various Herbicides on Taraxacum officinale	High Technology High School Michael Roche		
C0814	Citlalli Jiminez	Using Natto to Purify Water	Bridgeton High School Claudia Angle		
C0815	Catherine McAllister	The Carbon Dioxide Danger	Bishop Shanahan High School Sister Kathleen Eagan		
C0816	Anita Bilotta	The Effect of UVA Radiation on Different Organisms	Academy of Notre Dame de Namur Emily Giannantonio		
C0817	Simon Blanchard	Ferrofluid Works But is it Safe?	Bishop Shanahan High School Sister Kathleen Eagan		
C0818	Olivia Williams	Are Green Detergents Less Toxic Than Standard Detergents?	Woodstown High School - Pilesgrove High School Chris Rickard		
C0819	Aman Malik	Biofixation of CO2 Using Coccolithophorid Algae	Emmaus High School Brent Landrum		
MATI	MATHEMATICS				
C0901	Amanda Yang	Preventing Flu Epidemics via Vaccination: A Study Using Mathematical Modeling	Upper Dublin High School Leanne Jones		
C0902	Jeremy Wang	Comparison and Analysis of Novel Statistical Methods for Detecting Liver Cancer	Methacton High School Robert Helm		
C0903	Ana Brendel	The Accuracy of the Victim vs. Perpetrator Distance Estimation Equation	High Technology High School Michael Roche		
C0904	Mark Chen	Three New and Simpler Methods to Construct a Regular Pentagon	Manalapan High School Bharathl Srinivas		

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
C0905	Eric Lou	After a Positive Earnings Surprise - Rush or Wait? The Comparison of Two Stock Trading Strategies	High Technology High School Michael Roche
C0906	Srisa Changolkar	Statistical Predictive Modeling of Adverse Events Associated with Cancer Drugs from FDA Database	Julia R. Masterman School Kathleen Tait
C0907	Karthik Yegnesh	Constant Theoretic Constructions of Resistant Homology and Neural Networks	Methacton High School Robert Helm

MEDICINE/HEALTH

C1001	Sarah Crinnion	The Effect of the Mass of a Backpack on Shoulder Mobility and Strength	Academy of Notre Dame de Namur Emily Giannantonio
C1002	Tori Robbins	What is the Effect of Food Dyes Yellow 5 and 6, Red 40, and Blue 1 on the Regeneration of Dugesia Tigrina's Eye Spots?	Robbins Homeschool Carole Robbins
C1003	Nick DiBello	The Effect of Different Types of Shoes on Shin Splints	Germantown Academy Upper School Sarah Smith
C1004	Diana Ngyuen	Music in Your Blood	Philadelphia Academy Charter High School Joyce Zeka
C1005	Aparna Ragupathi	The Effect of Brahma Rasayana on the Longevity of Drosophila melanogaster	High Technology High School Michael Roche
C1006	Roy Ghosh	Innovative Method of Killing Circulating Tumor Cells During Metastasis Using TRAIL Presenting Liposomes	Orefield Middle School Dr. Yaling Liu
C1007	Haley Hunt	Can Humans Experience Phantom Limb Syndrome Without Being an Amputee?	Woodstown High School - Pilesgrove High School Chris Rickard
C1008	Bridgid Chandler	The Effect of Beta-Agonists on Heart Rate	Academy of Notre Dame de Namur Emily Giannantonio
C1009	Aheli Chatterjee	Rescuing Autism-Like Behaviors and Hippocampal Development in Fragile X Mice by Activating PKC Epsilon	Manalapan High School Probal Banerjee
C1010	Amy Lu	Identifying Chaperons to Stabilize Porfilin1 M114T Mutant for Treatment of ALS	Methacton High School Robert Helm
C1011	Samantha Lorenzo	Who Will Be the Alpha? Neuro-Stimulation Using Binaural Beats in Fully Developed and Developing Brains	Villa Joseph Marie High School Nicholas Zlupko
C1012	Amandeep Kaur	Drug Solubility	Northeast High School James Finley
C1013	Habeeb Salau	Rethinking Tissue Engineering: Novel Uses of Tissue Mimicking Hydrogel Scaffolds to Direct Cell Migration	Parkland High School Christopher Gahman
C1014	Annie Weyand	Measuring Knee Stress with a Model	Bishop Shanahan High School Sister Kathleen Eagan
C1015	Nisha Arya	Cerebral Blood Flow as a Marker for Urinary Urgency	North Penn High School Melody Leithold
C1016	Colby Kocon	The Effects of Crumb Rubber on Lubricana Ternestris	Emmaus High School Brent Landrum
C1017	Dayana Leon	Water Contamination and Hardness	Bridgeton High School Claudia Angle
C1018	Ashish Abraham	The Role of Pancreatic Extracellular Matrix in Cancer	Central High School Galeet Cohen
C1019	Emma Scupp	Nondestructive Spectroscopic Analysis of Stem Cell Differentiation	Central Bucks High School/West Mark Hayden

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR	
MICROBIOLOGY				
C1101	Brent Horsey	Comparing the Effectiveness of Different Disinfectants Against Bacteria	The Pilgrim Academy Ruth Blouch	
C1102	Benjamin Wood	Factors Affecting Electrical Output of Anaerobic Bacteria in Microbial Fuel Cells	Chester County Homeschool Margaret Greene	
C1103	Preeti Bobba	Bacteria: Gram Staining and Antibiotics	Methacton High School Robert Helm	
C1104	Joanna Myrtaj	Soaking Up the Sun	Philadelphia Academy Charter High School Joyce Zeka	
C1105	Sumedha Kanthamneni	Natural Antimicrobial Agents	Parkland High School Christopher Gahman	
C1106	Nishant Chitluru	The Effects of Temperature, Moisture, Light and Agar Quantity on the Speed of Slime Mold	Parkland High School Christopher Gahman	
C1107	Monique Slowly	Natural Antimicrobial Agents	Cheltenham High School Russell Wolff	
C1108	Jennifer Dudzinsky	The Effects of Nanosilver on Gram Negative and Gram Positive Bacteria	Academy of Notre Dame de Namur Emily Giannantonio	
C1109	Nhi Nguyen	DNA: Volume vs. Components	Philadelphia Academy Charter High School Joyce Zeka	
C1110	Morgan Storino	The Effects of Acne Medication on Bacteria	Easton Area High School Penny Diehl	
C1111	Abigail Smith	The Effect of UVC Light on Food-borne Pathogens	Academy of Notre Dame de Namur Emily Giannantonio	
C1112	Molly Welby	The Effectiveness of Ag Saturated Filters on E. coli in Contaminated Water	The Perkiomen School Melinda Irven	
PHYS	ICS			
C1201	Dominic Adamo	Perfect Pitch Propeller	Souderton Area High School Karen Frazier	
C1202	Kristy Oakley	Does Heat-Protecting Spray Actually Prevent Damage to Flat Ironed Hair?	Academy of Notre Dame de Namur Emily Giannantonio	
C1203	Nadira Kaleem	A Comparative Analysis of the Absorption of Light for Various Colored Solutions Through a Spectrophometer	Parkland High School Christopher Gahman	
C1204	Anoop Bhat	Ships That Fear Water	North Penn High School Melody Leithold	
C1205	Camryn Hackett-Slimm	Using a Laser to Measure the Speed of Light in Gelatin	Woodstown High School - Pilesgrove High School Chris Rickard	
C1206	Emma Boeckle	Does a Spinning Pitch Change the Motion of a Softball?	Woodstown High School - Pilesgrove High School Chrie Pickard	

01200		the Motion of a Softball?	Pilesgrove High School Chris Rickard
C1207	Sahas Kurumety	Effectiveness of Environmentally Friendly Insulators	Methacton High School Robert Helm
C1208	Sebastian Moreno	The Dancing of the Ping Pong Balls	Philadelphia Academy Charter High School Joyce Zeka
C1209	Kunaal Chaudhari	Comparing the RT60 Values of Acoustic Fiberglass, Slit Foam Pads, Carbon Fiber, and Microfiber Cloths to Determine Sound Absorption	High Technology High School Michael Roche

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR	
C1210	Darren Schachter	An Analysis of the Effects of Irregular Magnet Topologies on the Power Output of an Alternating Current (AC) Generator	High Technology High School Michael Roche	
C1211	Olivia Traynor	The Effect fo Different Surfaces on the Force of Friction Acting on a Golf Ball	Academy of Notre Dame de Namur Emily Giannantonio	
C1212	Brianna Marmorstein	What Material is Most Soundproof?	Academy of Notre Dame de Namur Emily Giannantonio	
C1213	Omar Cruz	How Far Will it Fly?	Bridgeton High School Claudia Angle	
C1214	Man Nguyen	Investigating the Effects of Wireless Communications on the Electromagnetic Field	Liberty High School Melissa Waldron	
C1215	Maanasi Gothoskar	Electrolysis Efficiency	Parkland High School Christopher Gahman	

ZOOLOGY

C1301	Nathan Wong	Designing Resistant Plastics Based on Microscopic Sharkskin Patterns	Germantown Academy Upper School Sarah Smith
C1302	Alaina Perdon	Best Location for Upweller on LBI	Marine Academy of Tech/Environmental Science John Wnek
C1303	Sadie Wolfarth	The Effect of Sunscreen on Marine Invertebrates	Marine Academy of Tech/Environmental Science John Wnek
C1304	Ahmed Taha Shahzad	The Effects of Grapefruit Extract and Statin Drugs upon Drosophila melanogaster Metabolism and Behavior	Unionville High School Sandra Litvin
C1305	Arianne Fitzgerald	Luster Wars: Genetic Factors Behind the Havana	North Penn High School Melody Leithold
C1306	Morgan Flynn	Evolutionary Trees and You	Philadelphia Academy Charter High School Joyce Zeka
C1307	Charlotte Tiley	The Effects of Nicotine on Black Worms	Academy of Notre Dame de Namur Emily Giannantonio
C1308	Soo-Un Jeong	Attracted to Perfume	Upper Dublin High School Joanne Lilliendahl
C1309	Elizabeth Marlin	The Effects of Light, Magnetic Fields, and pH on the Regeneration of Dugesia Tigrina	Our Lady of Mt. Carmel Homeschool John Marlin
C1310	Rachel Skwirut	Is There Kit Preference in a Litter of Rabbits?	Penns Grove-Carneys Point High School Shannon Tyson
C1311	Timothy Vander Neut	I'm Pav-Loving it	Bishop Shanahan High School Sister Kathleen Eagan
C1312	Emily Carroll	The Effect of Different Saddle Pads on the Temperature of Horses During Exercise	Academy of Notre Dame de Namur Emily Giannantonio
C1313	Justin James	Effects of Melatonin on the Heart Rate of Daphnia magna	George Washington High School Anita Abraham

PRESENTOR

EXHIBIT

SCHOOL & SPONSOR

H.S.

Christopher Gahman

BEHAVIOR AL/SOCIAL SCIENCES

BEHA	VIORAL/SOCI	AL SCIENCES	
D0101	Clare English	Does the Way Something Smells Affect the Way it Tastes?	Woodstown High School - Pilesgrove High School Amelia Adams
D0102	Connor Williams	One Call Could Wreck it All	Souderton Area High School Karen Frazier
D0103	Joey Huang	The Effects of Text-Messaging	Central High School Galeet Cohen
D0104	Jacob Berkowitz	The Effects of Music on Word Processing Skills	Cherry Hill High School East Nicholas Wright
D0105	Humzah Durrani	SR Effect on Music Listening Teens	Cherry Hill High School East Nicholas Wright
D0106	Elizabeth Xydis	Does Food Packaging Affect a Consumer's Experience?	Bishop Shanahan High School Sister Kathleen Eagan
D0107	Elena Napoletano	The Effects of Spelling Alteration on Word Recognition	Holicong Middle School Jesse Breeden
D0108	Brigit Joseph	The Growth of Fear Part II	Pennbrook Middle School Carol Ward
D0109	Megan Herrmann	The Right Person For the Job? A Study of Gender Stereotypes	Downingtown STEM Academy Christine Dinger
D0110	Gabriel Wingert	Warped Words with the Stroop Effect	Tohickon Middle School Mark Hayden
D0111	Gillian Porter	Learning When to Learn: Evaluating Hypnopaedia and Time of Study for Optimal Learning	Bishop Shanahan High School Sister Kathleen Eagan
D0112	Sean Burtnett	The Short Term Effects of Video Gaming on Children's General Intelligence	Youth Achievers' Committee Sherita Singleton
BIOCI	HEMISTRY		
D0201	Adam Zhang	The Effect of Protease Activity on the Formation of Gelatin	Methacton High School Robert Helm
D0202	Avery Johnston	Feel the Burn	Coatesville 9-10 Center Steven Karcewski
D0203	Aditi Pallod	Novel Method to Creating a Polypeptide Plasmid Structure for Drug Delivery	Parkland High School Christopher Gahman
D0204	Amanda Hamid	Biofabrication with Breast Cancer Cells	Julia R. Masterman School Kathleen Tait
D0205	Rebekah Varghese	Investigating the Ripeness of a Bell Pepper and Its Vitamin C Concentration	Methacton High School Robert Helm
D0206	William Gantz	Which Cooking Method Maintains the Highest Vitamin C Content in Food?	Woodstown High School - Pilesgrove High School Amelia Adams
D0207	Michael Kates	Spinach is Not Just Green	Philadelphia Academy Charter I Joyce Zeka
D0208	Chloe Rust	Which Type of Substance Replicates the Best Blood for Crime Scene Analysis?	Woodstown High School - Pilesgrove High School Amelia Adams
D0209	Amanda La Vana	The Effects of Various Fruits on Tooth Enamel	Emmaus High School Brent Landrum
D0210	Minahil Chaudhry	Mechanism of Gene Mutation in	Parkland High School

Type 2M Von Willebrand Disease



PRESENTO	R	EXHIBIT	SCHOOL & SPONSOR
D0211	Sophia Qureshi	Developing an Artificial Pancreas	Unionville High School Sandra Litvin
D0212	Priya Kaneria	Comparing DNA Yields between Fruits and Vegetables	Upper Dublin High School Dawn Edelman
D0213	Anjali Chakradhar	Design and Evaluation of Betulin-Based Anti-Cancer Compounds	High Technology High School Michael Roche
D0214	Abbrielle Lindberg	Reducing Heterocyclic Amines Formation During Flame Grilling Process through Injectable Marinades	Cherry Hill High School East Nicholas Wright
D0215	Jessica Holowsko	The Magic of Antioxidants	Bishop Shanahan High School Sister Kathleen Eagan
D0216	Aalisha Jhaveri	Sugar Shockers: Uncovering Hidden Sugars	Council Rock High School/North Terese Grateful
BOTA	NY		
D0301	Belinda Jin	How Gibberellins Affect Plant Growth	Upper Dublin High School Brian Palme
D0302	Ethan Hoben	Effects of Environmental Chemicals on Plant Life	Emmaus High School Brent Landrum
D0303	Nehali Gupta	Plants vs. Preservatives	Parkland High School Christopher Gahman
D0304	Amelia Shaddinger	Effect of Hydrogen Peroxide on Seed Germination and Plant Health	Upper Dublin High School Judy Winship
D0305	Hannah Lewis	Effect of Salt Water Concentration on Transpiration Rate	Souderton Area High School Karen Frazier
D0306	Aparna Dev	The Effect of Differing pH on Egeria Densa and Ceratophyllum	Council Rock High School/North Terese Grateful
D0307	Cara Franceschini	Which Manure Mixed With Soil Will Grow Sunflowers the Fastest?	Woodstown High School - Pilesgrove High School Amelia Adams
D0308	Kayla Stellabotte	The Effect of Wind on the Height and Weight of Plants	Emmaus High School Brent Landrum
D0309	Imara Honay	Can You Plant a Garden Without Soil?	Philadelphia High School for Girls Emily McGady-Greenleaf
CHEN	AISTRY		
D0401	Annabelle Laughlin	Is There a Relationship Between Type of Drink and Its Electrolyte Content?	Upper Dublin High School Brian Palme
D0402	Sindhura Siddapureddy	The Effects of Different Cooking Methods on Ascorbic Acid Concentration	Lenape Middle School Jennifer Yeager
D0403	Sriyaa Suresh	Model the In Vivo Diffusion of Calcium Ions to Maintain Bone Structure	Parkland High School Christopher Gahman
D0404	Priya Devanarayan	Has BPS Taken the Role of BPA in Thermal Receipt Rolls?	Souderton Area High School Karen Frazier
D0405	Aaron Joseph	Does the Cooking Method of Vegetables Affect the Amount of Vitamin C?	George Washington High School Anita Abraham
D0406	Jonathan Cheng	Chirality of Sugar Solutions	Methacton High School Robert Helm
D0407	Keenan Kirk	Brushing Away the Brown	Bishop Shanahan High School Sister Kathleen Eagan
D0408	Mirai Inaoka	Testing the Corrosiveness of Household Cleaners Using Hair	Emmaus High School Debra Barthold
D0409	Patrick Kuzdzal	How Much Vitamin C is in Different Homemade Vegetable Juices?	Emmaus High School Brent Landrum

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR	
D0410 Is	sis Velasquez	Which Provides More Electrolytes - Cherry Juice vs. Sport Drinks?	Woodstown High School - Pilesgrove High School Amelia Adams	
D0411 E	Esther Kardos	Effects of Various Drinks on Teeth Whiteness	Council Rock High School/North Terese Grateful	
COMP	UTER			
D0501 A	Ananth Koppol	Creating a Computer Program That Uses Browser History to Provide a Map of an Alzheimer's Patient's Daily Internet Activities	High Technology High School Michael Roche	
D0502 N	Nathanael Costa	In Situ Stochastic Modeling of Virulent Disease	Costa Homeschool Roy Costa	
D0503 J	Jason Chee	How Much Speed Does Friction Take Away?	Germantown Academy Upper School Sarah Smith	
D0504 A	Amirah Mujahid	Goals Lab	Philadelphia High School for Girls Emily McGady-Greenleaf	
D0505 E	Ethan Moyer	The Dawn of Genetic Storage: Proof of Concept	Souderton Area High School Karen Frazier	
D0506 K	Kaleb Sherrill	Digital Voice Analysis	Upper Darby High School Roseann Burns	
D0507 N	Michael Prieto	Coding by Voice	Bishop Shanahan High School Sister Kathleen Eagan	
D0508 A	Alexa Vergara	What Materials Affect a Wi-Fi Signal?	Woodstown High School - Pilesgrove High School Amelia Adams	
D0509 H	Hannah Newman	The Effect of Programming Language on the Speed of Calculating E	Chester County Homeschool Margaret Greene	

EARTH/SPACE SCIENCES

D0601	Marie Smith	Determining Redshift Photometrically	Upper Darby High School Roseann Burns
D0602	Jeremiah Martin	Can Indoor Houseplants Reduce Levels of Indoor Air Pollutants Such as Ozone and Formaldehyde?	Central High School Galeet Cohen
D0603	Sarah Valente	The Metedeconk River in the Fall and Winter	Marine Academy of Tech/Environmental Science John Wnek
D0604	Brooks Miller	Soil and Water Retention	Easton Area High School Theresa Wolf
D0605	Jules Viant	The Effects of Different Soil Surfaces on Landslides	Easton Area High School Theresa Wolf
D0606	Sanjit Shelukar	The Effect of the Angle of a Solar Cell on Power Captured	Wissahickon High School Mary Jo Burgoyne
D0607	Nevaeh Strucke	How Does the Tilt of the Earth's Axis Affect the Seasons?	Easton Area High School Theresa Wolf
ENGI	NEERING		
D0701	Sathya Edamadaka	Using Invisible Light to Create a More Efficient Solar Panel	High Technology High School Michael Roche
D0702	Gaea Lawton	Swimming in Energy: Improved Geothermal	PA Leadership Charter School

D0702	Gaea Lawton	Swimming in Energy: Improved Geothermal Efficiency That Heats the Pool and Cools the House	PA Leadership Charter School Jamie Castle
D0703	Kailyn Seixas	Automatic Pet Feeder	Liberty High School Melissa Waldron
D0704	Cindy Chau	Just the Flick of Your Wrist	Philadelphia High School for Girls Emily McGady-Greenleaf

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR	
D0705	Neha Vagvala	Winglets in Wind Tunnels	Methacton High School Robert Helm	
D0706	Emma Lehmann	From the Table to the Sky: An Inexpensive Clean Water Alternative	Holicong Middle School Jesse Breeden	
D0707	Ryan Walton	An Evaluation of Household Items' Ballistic Capabilities - What Material Prevents a Wooden Dowel From Going the Furthest?	Woodstown High School - Pilesgrove High School Amelia Adams	
D0708	Ethan Cody	3D Printed Robotic Hand	Germantown Academy Upper School Sarah Smith	
D0709	Adam Morys	Tracking the International Space Station	Malvern Preparatory School Anna Geider	
D0710	Harsha Santhanam	Morphing Wings: The Shape of Things to Come	Methacton High School Robert Helm	
D0711	Isha Mohapatra	Optimization of Brick Thermal Conductivity and Crushing Strength	Moravian Academy Gabriella Dee	
D0712	Patricia Yao	Network Topologies in Distribution of Goods in Pennsylvania	Parkland High School Christopher Gahman	
D0713	Kyle Yanush	Using Hydraulic Models to Lift Weight	Woodstown High School - Pilesgrove High School Amelia Adams	

ENVIRONMENTAL

D0801	Tiana Whitfield	Bioplastic	Philadelphia High School for Girls Emily McGady-Greenleaf
D0802	Ayomikun Gbadamosi	Floccuation Caused by the Elevated Concentrations of Iron in Pine Barren's Soils	Marine Academy of Tech/Environmental Science John Wnek
D0803	Jason Qiu	Analyzing Environmental Effects on Optical Dust Sensors	Methacton High School Robert Helm
D0804	Samantha Midili	Spotless Sorbents - Which Sorbent Will Absorb the Most Vegetable Oil?	Woodstown High School - Pilesgrove High School Amelia Adams
D0805	Lauren Gaetano	The Environmental Effects of Hydraulic Fracking	Academy of Notre Dame de Namur Emily Giannantonio
D0806	Izabel Marcello	Worms Gone Green	Easton Area High School Jacob Wolf
D0807	Zach Duthie	The Effect of Nitrogen on Invasive Plants	Upper Dublin High School Megan Gallagher
D0808	Rhea Kadakia	Graphene Supercapacitor	Parkland High School Christopher Gahman
D0809	Alana Ordonez	The Effects of Gas Stations on Compound Levels of Soil Across Ocean County	Marine Academy of Tech/Environmental Science John Wnek
D0810	Vidhya Shunmugasundaram	Bioremediation of Zinc in Water by Aquatic Plants	Cherry Hill High School East Nicholas Wright
D0811	Sophia Dilauro	Do Crops Grow Better with Worms or Fruit Compost?	Emmaus High School Debra Barthold
D0812	Tulsi Patel	Eco-Friendly Polystyrene Recycling Using Limonene	Methacton High School Robert Helm

MATHEMATICS

D0901	Grace Knauss	The Effect of Weather on Nuclear Bombs	Parkland High School Christopher Gahman
D0902	Ao Wang	Golden Ratio in Philly Homes	Central High School Galeet Cohen

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
D0903	Kevin Hou	Develop a Stock Algorithm Presented with Cloud Computing	Germantown Academy Upper School Sarah Smith
D0904	Prachi Soni	Finding F(x) with Genetic Algorithms	Parkland High School Christopher Gahman

MEDICINE/HEALTH

Christopher Gahman

MEDI	CINE/HEALIH		
D1001	Ishaan Patel	The Effects of the Oxidative Properties of Copper on Staphylococcus epidermidis	Methacton High School Robert Helm
D1002	Josee Li	How Does an Anti-Diabetic Drug Take Effect Differently on Patients?	Council Rock High School/North Terese Grateful
D1003	Frank D'Agostino	Correcting Improper Running Form by Means of Using Weights on Different Areas of the Body	Marine Academy of Tech/Environmental Science John Wnek
D1004	Urjeet Deshmukh	Developing an Artificial Pancreas: Testing its Accuracy by Normalizing it in a Neutralized Solution	Parkland High School Christopher Gahman
D1005	Julienne Chaqour	The Effect of the Plant Hormone Abscisic Acid on the Sprouting of Blood Vessels in vitro	High Technology High School Michael Roche
D1006	Puja Samant	Why Do Some People Respond to Lipitor® Differently Than Others?	Pennbrook Middle School Carol Ward
D1007	Sophia Skorup	The Effect of Nicotine on Blackworms	Academy of Notre Dame de Namur Daniel Cushing
D1008	Hayden Crouch	Using Mirrors to Stimulate Physical Sensations	Woodstown High School - Pilesgrove High School Amelia Adams
D1009	Elizabeth Stifel	Does the Sense of Taste Diminish as People Grow Older?	Moravian Academy Gabriella Dee
D1010	Isabella Briseno	Does the Practice of Yoga Improve One's Leg Flexibility?	Woodstown High School - Pilesgrove High School Amelia Adams

MICROBIOLOGY

D1101	Isabelle Molinari	Radiation Sensation	Academy of Notre Dame de Namur Daniel Cushing
D1102	Kacy Liang	The Effect of Different Concentrations of Green Tea on E.coli	Council Rock High School/North Terese Grateful
D1103	Sophia Delia	Can Physarum Polycephalum Find the Shortest Path to Food in a Maze and Establish a Route Between Two Pieces of Food, Demonstrating Primitive Intelligence?	Woodstown High School - Pilesgrove High School Amelia Adams
D1104	Henry Price	The Effect of Long and Short Wave Ultraviolet Light on Bacteria Growth	Souderton Area High School Karen Frazier
D1105	Shakti Ramnath	Do Essential Oils Prohibit Mold Growth?	Council Rock High School/North Terese Grateful
D1106	Shichen Nie	The Analysis of Protection Rate of Masks Based on the Amount of Bacteria and Time	Holicong Middle School Carrie Bannon
D1107	Sydney Breslin	Edible Food Preservation Films Using Shellfish Waste & Essential Oils	Christopher Dock High School Kathy Holden
D1108	Kasie McLeod	Fast Food Frenzy: Which Restaurant Puts the Most Preservatives in the Food?	Woodstown High School - Pilesgrove High School Amelia Adams
D1109	Natalie Chasten	Bacteria Growth on Toothbrushes In Various Bathroom Locations	Woodstown High School - Pilesgrove High School Amelia Adams
D1110	Brian Simons	Using a Microbial Fuel Cell to Power a 3V LED	Emmaus High School Brent Landrum
D1111	Joshua Kouassi	One in a Million	Carver Engineering and Science Amit Basu

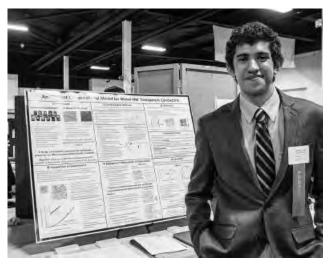
PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
D1112	Priyanka Hanumaihgari	Chemical Effect on Mutations and DNA Repair Pathways of Saccharomyces Cerevisiae	Parkland High School Christopher Gahman
D1113	Rhea Malhotra	The Effect of Biochemical Agents on Mesenchymal Stem Cells	Moravian Academy Joanne Daniels
D1114	Anna Dewey	Bacterial Battles	Academy of Notre Dame de Namur Daniel Cushing
DLIVC	ICC		
PHYS D1201	Sonya Boukengolts	The Effect of Water Depth on Color Perception	Emmaus High School
DIEOT	bonya Doanengons		Debra Barthold
D1202	Shivanand Peri	Factors Affecting Magnetic Field Strength	Council Rock High School/North Terese Grateful
D1203	Ashley Adams	How Much Force In Newtons, Per Square Centimeter, Is On a Dancer's Toes While Dancing Fully en Pointe, Demi-pointe, And With Two Flat Feet, And Which Position Has The Most Force?	Woodstown High School - Pilesgrove High School Amelia Adams
D1204	Ryan Mattes	Temperature's Affect on a Bouncing Basketball	Easton Area High School Jacob Wolf
D1205	Dung Nguyen	The Effect of Stress on Piezoelectric Crystals	Marine Academy of Tech/Environmental Science John Wnek
D1206	Katelyn Rogers	Faraday's Law of Induction	Coatesville Area Senior High School Steven Karcewski
D1207	Emma Fisher	The Effects of Train Vibrations on a House	Emmaus High School Debra Barthold
D1208	Lauryn Watson	Paper Towel Battery	Philadelphia High School for Girls Emily McGady-Greenleaf
D1209	Allison Chang	UV Ray Protection with Shirt Color and Type	Upper Dublin High School Brian Palme
D1210	Elizabeth Berzin	Numerical Aperture of Optical Fibers	Lower Moreland High School Joanne Fox
700	LOGY		
D1301	Sahil Inaganti	The Effects of Environmental Factors on Action Potentials of Earthworms	Parkland High School Christopher Gahman
D1302	Catherine Raspanti	Give Me a Paw: Do Canines Have a Paw Preference?	Girard Academic Music Program Jason Henderson
D1303	Ashleigh Blake	Which Animal Has the Most Bacteria in It's Mouth: Human, Horse or Dog?	Woodstown High School - Pilesgrove High School Amelia Adams
D1304	Sofia Suero	Equine Shoulder Angle to Stride Length Relationship	Academy of Notre Dame de Namur Daniel Cushing
D1305	lan Clark	Scorpions' Photo-Phobia	Avon Grove High School Linda Rhodes
D1306	Anastasia Shehady	The Effects of Microplastics on Marine Environments	Marine Academy of Tech/Environmental Science John Wnek
D1307	Saniya Pangare	The Effect of Different Acids and Bases on the Viability of the Daphnia Magna	Parkland High School Christopher Gahman
D1308	Paige Pierson	The Effect of Coconut Oil on the Health of Horse Hoofs	Woodstown High School - Pilesgrove High School Amelia Adams
D1309	Rashmi Raghuraman	The Effect of Nicotine and Ethanol on the Heart Rate of Daphnia Magna	Parkland High School Christopher Gahman

	PRESENT	TOR	EXHIBIT	SCHOOL & SPONSOR
	T1401	Tamia DeSeignoria Shakyah Young	Which Has Less Bacteria - Apple or Apple Mummy?	Philadelphia High School for Girls Emily McGady-Greenleaf
	T1402	Galen Oliver Jose Rosario, Jr.	The Candy Shell Dissolves!	Salem High School Bruce Ferguson
	T1403	Shinbee Park Emily Wood	The Copper Toxicity Threshold of Lemna Minor	Charter School of Wilmington Tim Carr
	T1404	Kaylie Neihls Soobin Kim Darcy Overley	Cow Bone Marrow: A Promising Biodiesel Source	Coventry Christian School Allan Alipio
	T1405	Chloe Hart Andrew Rodebaugh	How Wheel Material Affects How Far a Car Goes	Science Leadership Academy Shannon McCullough
	T1406	Lindsey Brady Evelyn Putri	The Effects of Various Lotions on Skin Moisturization	Charter School of Wilmington Rick Schuder
	T1407	Victoria Pobok Peter LoBello	Streaming the Rivers and Creeks in Ocean County, New Jersey	Marine Academy of Tech/ Environmental Science John Wnek
	T1408	Ryan Alford Jacob Bronkema	Chicken Coop Environments and Their Effect on Egg Production	Delaware County Christian School Lisa Swieson
	T1409	Brittany Doughty Samantha Doughty	Guitar Fundamentals: Wavelength, Frequency and Speed	Pennsville High School Robert Belding
	T1410	Daniella Jose Julia Scanlon	High Altitude Ballooning: Exploration and Experimentation	Academy of Notre Dame de Namur Emily Giannantonio
	T1411	Jesus Davaloz Marcus Seauright Kai Tinsley	Design of a Low-Cost Prosthetic Arm	Carver Engineering and Science Amit Basu
	T1412	Manasa Gadiraju Aditi Patel	Antibacterial Potential of Individual and Combined Extracts of Fresh vs. Prepared Indian Spices Against Escherichia coli	Biotechnology High School Ann MacLean
	T1413	Devon Mattie Ibette Cruz-Lopez	Pucker Up!	Vineland High School Marie Donato
PROJECTS	T1414	Nate Hoffman Spencer Hoffman	Code Generation from Natural Language	Hoffman Homeschool Beth Hoffman
I GRADES	T1415	Nathaniel Watkins William Watkins	The Photocatalytic Properties of Cubic Nanostructures of Noble Metals	Central Bucks High School/West Mark Hayden
	T1416	Yiwei Lyu Vivian Liu Ishani Sahu	Efficient Management of Database and Search Term Indices Using Integer Compression	Bethlehem Catholic High School Anthony Messina
	T1417	Tanya Kler Pushti Desai	Music to My Heart	Penndale Middle School Matthew Wendell
	T1418	Brady Trainor Lucas Valladares	Shewanella Oneidensis: The Microbial Fuel Cell	Cherry Hill High School East Nicholas Wright
	T1419	Sabrina Ghosh Arvind Parthasarathy	Biological Phenomena of Neural Stem Cell Differentiation on Graphene	Orefield Middle School Swapan Ghosh
	T1420	Audrey Farnham Kaitlyn Fluharty	Water We Doing to Watersheds?	Owen J. Roberts High School Mark Hofer
	T1421	Victor Yuan Michael Philips	The Effect of Hydroflurocarbon Exposure on the Lifespan Expectancy of Drosphila Melangaster?	Parkland High School Christopher Gahman

2016 TEAM P 9TH - 12TH

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
T1422	Molly Eron Julia Wiegers Andrew Zhang	TiO2 Photocatalytic Water Sterilization and Energy Production Through a Hydrogen Fuel Cell	Holicong Middle School Robert Meletti
T1423	Lucas Attia Michael Mattamira	The Effect of Fructooligosaccharide Replenish Rate on the Final Populants of Bifidobacteria desolfovibrio	Charter School of Wilmington Rose Lounsbury
T1424	Cambria Luschen Katerina Connelly	Is Memory Genetic?	Pennsville High School Robert Belding
T1425	Eden Newton Brittney Soler	Multitasking with Senses in Humans	Vineland High School Marie Donato





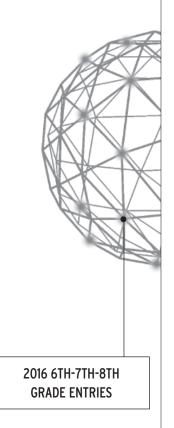
PRESENTOR

EXHIBIT

Andrea Narvaez

BEHAVIORAL/SOCIAL SCIENCES

	WIORAL/SOCI	AL SCIEINCES	
E0101	Katelyn Judge	Do You See What I See? Optical Illusions	St. Francis de Sales Roseann Place
E0102	Courtney Rowland	Candy Confusion	Holicong Middle School Robert Meletti
E0103	Ellie Frank	Do Different Focus Habits Affect Your Test Scores?	Mannington Township School Nancy Anderson
E0104	Amaya Douglas	Are Toys Just Toys for Girls and Boys: Evaluating Kids at Play	PA Leadership Charter School Jamie Castle
E0105	Emma Knapp	Right vs. Left	William Henry Middle School Christine Barrett-Miller
E0106	Madison Schmolz	Pick a Number	Schmolz Academy Homeschool Cheryl Schmolz
E0107	Brandon Vu	The Effects of Working Memory Training on Math Performance	Penndale Middle School Matthew Wendell
E0108	Molly Tyler	Errrrgh! How Do Different Ages and Genders Express Their Frustration?	Oldmans Township School Jason Winistorfer
E0109	Annabelle Jin	Do Math and Music Mix?	William Allen Middle School Karla Parnagian
E0110	Thomas Gallagher-Teske	How Different Senses Influence Reaction Time	Holicong Middle School Robert Meletti
E0111	Caroline Baag	The Peppermint Project	Ursuline Academy Nicole Williamson
E0112	Chloe Westerfer	Are People That Are Left Handed Better at Writing in Mirror Writing Than People That Are Right Handed?	Shawmont Elementary School Charlene Jablow
E0113	Aruna Balasubramanian	Flavor Frenzy: How We Perceive Complicated Tests	French International School of Philadelphia Valerie Denny
E0114	Maggie Lapp	Musical Mysteries	Penn Alexander School Stephanie Kearney
E0115	Corinne Stroup	Music Soothes the Savage Beast - But Does it Help Memory?	St. Patrick School (Malvern) Regina Weyer
E0116	Canon Emily	Rabbits Favorite Color	William Henry Middle School Christine Barrett-Miller
E0117	Hannah Murphy	[Title Not Available at This Time]	Folsom Elementary School Chris Roth
E0118	Vicky Zheng	Mathematically Musical	Fernwood Avenue Middle School Valerie Flesch
E0119	Cadence Roy	Ceci N'est Pas Une Expérience	Haddonfield Friends School Ben Chen
E0120	Claire Campbell	Do Men and Women See Things Differently?	St. Francis de Sales Aileen Campbell
E0121	Daphne Branner	Music and Memory	Beacon Middle School Kathleen Swingle
E0122	Anekha Goyal	The Effect of Omega-3 and Lactobacillus acidophilus on the Stimuli Response of Mutant NIg-1 C. elegans	Biotechnology High School Ann MacLean
E0123	Aditi Jasapara	Possible Factor Affecting Human Ability to Awaken From Sleep	Springhouse Middle School Troy Minarovic
E0124	ChowFong Kust	I Just Can't Pay Attention Right Now	Newark Charter School



PRESENTOR		EXHIBIT	SCHOOL & SPONSOR			
BIOC	BIOCHEMISTRY					
E0201	Shruti Velan	The Electrolyte Championship: Want to Know Who Won?	Downingtown Middle School Wendy King			
E0202	Piper Biggs	Rainbow DNA	Campus Community School Eric Morgan			
E0203	Carli Johnson	Does 100% Fruit Juice Have More Vitamin C Than Juice With Artificial Ingredients?	Crest Memorial School Matthew Fritz			
E0204	Carmela Adamo	Affect of Soda on Teeth Project	Holland Middle School Dave Curry			
E0205	Isata Bangura	Stomach Blues	Campus Community School Eric Morgan			
E0206	Kiefer Walsh	Fingerprint Similarities: Coincidence or Inheritance?	St. Margaret Regional School Regina Butterworth			
E0207	Charlotte Poehlmann	Milk Matters Stephanie Kearney	Penn Alexander School			
E0208	Hannah Schnell	Moisturizing Skin for the Win	St. Margaret Regional School Regina Butterworth			
E0209	Talia Priore	The Sugar in Your Stomach	Alloway Township School Debra Dilks			
E0210	Emma Bonsall	Observing Osmosis in Gummi Bears	St. Francis de Sales Paula Bonsall			
E0211	Bradley Richman	Which Type of Calf Starter Grain Gives Calves The Best Growth?	Mannington Township School Nancy Anderson			
E0212	Marikate Kilker	How Much Gluten Do You Knead?	St. Dorothy School Diane Kilker			
E0213	Lillian Miller	The Effect of pH on Marine Rotifera	Perkiomen Valley High School Dave Johnson			
E0214	Tessa McDonough	How Does Fermented Food Affect Chickens?	Millsboro Middle School Lorraine Jordin			
E0215	Jacqueline Engler	Effects of Temperature on an Enzyme Catalyst Reaction	St. Andrew School - Drexel Hill, PA Kristen McCandless			
E0216	Ashmitha Sivakumar	Future Fuel	Arcola Intermediate School Cathy Stewart			
E0217	Trish Le	Pesticides on Crickets	C.C.A. Baldi Middle School Matthew Scanlan			
E0218	Suchir Agarwal	Sugar Intake	Springhouse Middle School Noel Mahmood			
E0219	Vidhyasai Annem	Bioplastics: Emerging Eco-Friendly Polymers	Springhouse Middle School Susan Stern			
E0220	Rahul Narayanan	Is Organic Food Better For You?	Great Valley Middle School Lee Bettenhausen			
E0221	Nia Mallangada	How Does the Size of a Particle Affect its Chemical Reaction Rate?	Manalapan-Englishtown Middle School Marie Behnke			
E0222	Mikaila Gallagher	Electrolyte Challenge: Orange Juice vs. Sports Drink	Holland Middle School Dave Curry			

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
BOTA	NY		
E0301	Robert Trauger	Earthworms And Plant Growth: Are They Related?	Oldmans Township School Jason Winistorfer
E0302	Mya Lagana-Bowers	Water vs. Coffee on Plant Growth	Campus Community School Eric Morgan
E0303	Aakash Narayan	Frozen in Time	Great Valley Middle School Lee Bettenhausen
E0304	Kendra Melniczek	Martian Meals	Owen J. Roberts Middle School Mark Hofer
E0305	Gokul Perugu	How Does Temperature Affect a Pansy During the Fall and Winter Seasons?	Springhouse Middle School Noel Mahmood
E0306	Justin Diament	How Does Electromagnetic Radiation Affect the Amount of a Wisconsin Fast Plant's Growth?	Manalapan-Englishtown Middle School Marie Behnke
E0307	Lauren Check	The Effect on Aspirin on Sunflower Plants	Philadelphia Academy Charter High School Joseph Egan
E0308	Janice Chen	Water Labor: the Hydroponic Way of Gardening	Holicong Middle School Robert Meletti
E0309	Jonathan Reese	Hot or Cold? Which Temperature Is Best For Plant Growth?	Pennsville Middle School Cherie Burns
E0310	Cody McBride	Investigating the Efficiency of Different Electromagnetic Radiation Sources on the Growth Rate of Melissa Officinalis	McBride Homeschool Carolyn McBride
E0311	Neel Patel	Organic vs. Inorganic: Which Fertilizer is Better?	C.C.A. Baldi Middle School Matthew Scanlan
E0312	Sage Scarlett	Smoke Detecting House Plants	Indian Crest Junior High School Jennifer Odenwald
E0313	Jerome Gantz	Seeds in Deep Freeze	French International School of Philadelphia Valerie Denny
E0314	Abigail Kearns	How Does Microwave Radiation Effect Seed Germination in Sugar Daddy Pea Plants?	Holicong Middle School Carrie Bannon
E0315	Neha Pamidi	What is the Effect of Antioxidants on Free Radicals?	Springhouse Middle School Susan Stern
E0316	Marilyn Langley	Plants Gone Coco-Nutty	Academy of Notre Dame de Namur Kathleen McTiernan
E0317	Kendal Coldren	The Effect of Electricity on Plant Growth	Delran Middle School Jennifer Frisella
E0318	Garrett Spillerman	What is the Effect of Different Colored Light on Grass Seed Germination?	Radnor Middle School Shannon Reece
E0319	Ben Koly	Saline Tolerant Permaculture Gardening	Millsboro Middle School Jaime Masters
E0320	Steven Cramer	Home Grown Purifiers	Galloway Township Middle School Debra Sommers
E0321	Laura Therese Dizon	A Seed's Life	William Henry Middle School Erica Thomas

PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
CHEN	MISTRY		
E0401	Thomas Theiner	Temperature of Fire and the Wavelengths it Produces	Orefield Middle School Dianne Haberstroh
E0402	Dianna Rampino	How Does Different Types of Drink Affects the Amount of Electrolytes Measured in the Drink?	Manalapan-Englishtown Middle School Jack Poznanski
E0403	Sahas Veera	Carbon Nanotube Filters: Investigation of the Desalination Properties of Graphene Oxide	Orefield Middle School Christie Schlaner
E0404	Paulina Dnistranska	Burning Calories: How Much Energy is Stored in Different Types of Food?	C.C.A. Baldi Middle School Dan Fern
E0405	Aaliyah Collins	The Blow Up	Quarter Mile Lane School Kathleen J. Sharp
E0406	Abigayle Heathwaite	The Cloud Chamber	Woodstown - Pilesgrove Middle School Don Dunner
E0407	Andrew Yang	Biodegradation Rates of Plastics in Different pH Environments	Holicong Middle School Robert Meletti
E0408	Matt Sandifer	How Temper Method Affects the Quality of Chocolate	Germantown Academy Middle School Jim DiFranco
E0409	Maya Butani	Is It Possible to Create Plastic from Food?	Moorestown Upper Elementary School Carol Herb
E0410	Martine Sirianni	Salt Bridge Over Electrified Waters	St. Mary Magdalen School Maryanne Amalfitano
E0411	Jacqueline Coval	Got Milk?	St. Mary Interparochial School Erin Lopez
E0412	Chad Noyes	What Common Plastics Leach Chemicals Into Water?	William Allen Middle School Karla Parnagian
E0413	Evan Wang	Effects of Salinity on Fuel Cell Efficiency	Patton Middle School Mary Jo Knauer
E0414	Ryan Antunes	How Salty Does Water Have to Be For an Egg to Float?	Ursuline Academy Nicole Williamson
E0415	Mackenzie James	Paper Chromatography	Quarter Mile Lane School Kathleen J. Sharp
E0416	Andrew Sheehan	An Alternate Fire Retardant	Holicong Middle School Robert Meletti
E0417	Ronan Dutton	The Effect of Acid Rain on Different Metals	Mariner Middle School Kathleen Fisher
E0418	Nate Waite	Elasticity of a Rubber Band	William Henry Middle School Cheryl Tyrell
E0419	Timothy Sweeney	Cookie Craze	St. Aloysius Academy Katherine Sweeney
E0420	Sophia Milone	How Much Vinegar Will Make the Most Casein Plastic When Combined With Proteins? If a Substance Has More Protein, Will There Be More of the Product?	Pittsgrove Township School Emily MacNeill
E0421	Neal Tinaikar	Iodine: the Hidden Micronutrient	Great Valley Middle School Lee Bettenhausen
E0422	Landon Lewicki	How Different Drinks Affect Dental Plaster	William Henry Middle School Christine Barrett-Miller
E0423	Nicole Albright	Measuring the Cross Sectional Area of a Molecule	Pennbrook Middle School Carol Ward

PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
COM	IPUTER		
E0501	David Gogiberidze	Simulation: The Effects of Global Warming on Long Island	Holland Middle School Mary Krempa
E0502	Joseph Seagal	Web on Mobile Devices	C.C.A. Baldi Middle School Angelique Frazier
E0503	Nathan Ho	TOAD: The Original Arduino-Based Drumpad	Fernwood Avenue Middle School Valerie Flesch
E0504	Jeffrey Gong	The Point of a Parabola! Focusing Wireless Signals	Arcola Intermediate School Cathy Stewart
E0505	Dharshan Tharumia	Does Electromagnetic Radiation From a Cell Phone Differ Based on Different Usage?	Springhouse Middle School Troy Minarovic
E0506	Griffin Steinman	Which Computer Operating System is Easiest to Use for Older Americans?	St. Aloysius Academy Amy Steinman
E0507	Kevin Mondragon	Does The Heart Rate of Soccer Player and Basketball Player Differ	Upper Pittsgrove School Danielle Taulane
E0508	Joseph Conte	The Stroop Effect	Upper Pittsgrove School Danielle Taulane
E0509	Jared Farrior	Video Games are Helping 91% of Children	Holicong Middle School Robert Meletti
E0510	Luca Butera	Identifying Common Wifi Interrupters	Phoenixville Area Middle School Tracey McGillian
E0511	Neil Deshmukh	Novel Use of Smartphones for Detection and Alerting of Earthquakes	Moravian Academy Joanne Daniels
E0512	Kevin Monisit	Can Genetic Algorithms Solve the Traveling Salesman Problem?	Toms River Intermediate East Sylvia Piznik
E0513	Will Knipe	Artificial Intelligence Algorithm Plays Connect Four	Patton Middle School Mary Jo Knauer
E0514	Michael DelVacchio	The Effectiveness of Thermal Interface Material	St. Francis de Sales Roseann Place
E0515	Kyle Leong	N3RDS Work	McCall Elementary School Scott Knoflicek
E0516	Tiffany Zhong	How Secure is Your Password?	Germantown Academy Middle School Rolland Wakeman

EARTH/SPACE SCIENCES

E0601	Emily Law	Ocean Currents and Weather	Holland Middle School Dave Curry
E0602	Keith Carra	Rock Solid	St. Maximillian Kolbe School Mary Riccardo
E0603	Alexa Lazar	Marshmallows in Space	Holland Middle School Dave Curry
E0604	Doreen Valmyr	Landslides: What Causes Rocks to Slide Down a Slope?	Wilson Middle School Lynda Foxworth
E0605	Danielle Falcone	Chaos Theory	Academy of Notre Dame de Namur Kathleen McTiernan
E0606	Maggie McMahon	Swimming in Acid: Understanding the Ocean's Acidification	Bishop McHugh Regional Catholic School Diane Bruesehoff
E0607	Arushi Tiwari	Improving the Water Retention of Soil	Arcola Intermediate School Cathy Stewart

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
E0608	Zoe Ellerbe	Beauty in the Cave	Fifer Middle School Jennifer McHenry
E0609	Kani Green	Clay Erosion vs. Dirt Erosion	Chester Community Charter School Jeorgina Smith
E0610	Prem Modi	Hydroponics: Gardening without Soil	C.C.A. Baldi Middle School Matthew Scanlan
E0611	Colleen Schiele	Stop That Wave!	Holy Cross Regional Catholic School Jennifer Hitchner
E0612	Caroline Crossed	Let's Make it Hot, Hot, Hot	Villa Maria Academy Lower School Shannon Duke
E0613	Julianne Dee	Going Solar	Orefield Middle School Amy Kakaley
E0614	Kylah Kellam	Erosion Solutions	William Henry Middle School Erica Thomas
E0615	McKayla Buehler	Which Soap Is Better for You?	Lower Alloways Creek Township School Stacy Sherman
E0616	Benjamin Schornstein	How Does the Type of Wing Design Affect the Amount of Lift the Object Has?	Manalapan-Englishtown Middle School Marie Behnke
E0617	Ava Wilson	At O Degrees Celsius Does Water Always Freeze?	Alloway Township School Debra Dilks

ENGINEERING

E0701	Sean Holmes	Green Energy	William Henry Middle School Erica Thomas
E0702	Olivia Austin	Can a 3D Case Heat or Cool a Cell Phone?	Jefferson School Jennifer Chowdhry
E0703	Matthew Nguyen	Which Airfoil Will Be the Most Efficient?	Our Lady of Hope School Marialena Cotilus
E0704	Milana Lofton	Which Raw Material Produces the Most Electricity and Posers an LED Light?	Ursuline Academy Nicole Williamson
E0705	Alexandra Worrall	What Dimensions Will Produce the Greatest Amount of Electricity With a Water Based Dynamo?	Lenape Middle School Jennifer Yeager
E0706	Ryan Hannah	Does the Size of a Bike Tire Affect How Quickly it Takes for a Bike to Go Down a Hill?	Upper Pittsgrove School Danielle Taulane
E0707	Sean Danecker	Dreams: Can They be Influenced?	Memorial Middle School - Point Pleasant Vincent Stasio
E0708	Naomi Imhoff	Solar Panels	Towle Institute Donna Chandler
E0709	Ashley Faustino	Sour Power	Indian Avenue School Mark Raybould
E0710	John Cobin	Jack It Up	Oldmans Township School Jason Winistorfer
E0711	Ambrose Cavalier	Hand-Held Appliances for Automatic Time Logging by Subject	Cavalier Homeschool Forrest Cavalier III
E0712	Jack Ringenbach	Constrained Layer Damping	St. Elizabeth School Jennifer Nangle
E0713	Jenry Yoc	Do Subs Need Fins to Float?	Buckshutem School Kristain Torchia
E0714	Mallik Byrd	Remote Control Car	Vare Middle School Courtney Everett

PRESENT	TOR	EXHIBIT	SCHOOL & SPONSOR
E0715	Margaret Carden	That's One Heck of a Bridge	St. Anastasia School Victoria Trainer
E0716	Charlie Jobin	Sensing the Difference	Germantown Academy Middle School Jim DiFranco
E0717	Carter Gassler	Self-Balancing Vehicle Prototype	Avon Grove Charter School Jessica Canning
E0718	Ore Alao	Friendly, Useful Hovercraft: How to Make It Great!	Moravian Academy Joanne Daniels
E0719	Ruhaan Kansagara	How Does the Type of Material Affect How Long a Shirt Takes to Dry	William Henry Middle School Erica Thomas
E0720	Asher Timmons	The Pneumatic Piston Powered Catapult	Georgetown Middle School MaryKatherine Messick
E0721	Alan Uthuppan	The Science Behind Cardstock Stool Structures	Springhouse Middle School Susan Stern
E0722	Julia Morgan	Which Recycled Material Creates the Most Efficient Solar Heater?	Toms River Intermediate South Cherri Worth
E0723	Dillon Koster	Fire Away	Jefferson School Jennifer Chowdhry
E0724	Claire Tse	Geometric Effects and Nano-Composites on Stealth Technology	Arcola Intermediate School Cathy Stewart
E0725	Jason Swope	How Does Changing the Length and Angle of Attack of the Blades on a Wind Turbine Affect the Power Output?	Lenape Middle School Jennifer Yeager
E0726	Flavien Moise	Which Geometric Shapes are the Stealthiest?	Moorestown Upper Elementary School Carol Herb
E0727	Hardik Bhardwaj	The Aerodynamics of Frisbees	William Allen Middle School Karla Parnagian

ENVIRONMENTAL

E0801	Marielle Georgia Buxbaum	Zeal and Power: The Zeer Pot Fridge	French International School of Philadelphia Valerie Denny
E0802	Laura Frederick	Battle of the Suds: Green vs. Typical Dish Soaps	Penn View Christian School Lisa Reichley
E0803	Cecilia Quirk	Minimize the Spoil of the Oil	Academy of Notre Dame de Namur Kathleen McTiernan
E0804	Shaun Bustin	Can I Build a Machine That Can Recycle K-Cups?	Crest Memorial School Matthew Fritz
E0805	Teagan Rudderow	Are You Cold?	Oldmans Township School Jason Winistorfer
E0806	Jay Patel	Green Electricity Production with Living Plants and Bacteria in a Fuel Cell	Youth Achievers' Committee Sherita Singleton
E0807	Sariah Spencer	Will Certain Herbs Decrease Bacteria in Water?	Lenape Middle School Jennifer Yeager
E0808	Sadie Salas	Don't Let Acid Rain Strain the Food Chain	St. Anastasia School Dawn LaBuono
E0809	Julia Heath	How Does Tying Cauliflower Effect the Way it Turns Out?	Quinton Township School Shane Manuel
E0810	Jackson Meyer	What Materials Prevent Erosion of Sand Under Salt Water?	Toms River Intermediate North Kathleen Keller

PRESENT	OR	EXHIBIT	SCHOOL & SPONSOR
E0811	Elizabeth Draper-Jones	Tap Water vs. Distilled Water	Campus Community School Eric Morgan
E0812	Krish Chawla	Control Energy	St. Mary Interparochial School Erin Lopez
E0813	Paul Clark	Leaf Energy	Engle Middle School Nora Radu
E0814	Jannah Shakir	The Efficacy of Carbon Filters on Lead and Water	Lanning Square Middle School Lauren Doron
E0815	Rowan Kelley	Can Meal Worms (Tenebrio molitor) Live on Styrofoam?	Collegium Charter School Katelyn Tobin
E0816	Matthew Becker	Greywater Recycling - Can Used Water Grow Healthy Plants?	McCall Elementary School Scott Knoflicek
E0817	Brooke Larcher	Which Type of Wood Burns Fastest?	Bishop Schad School Dana Ruegger
E0818	Colton El-Habr	The Effects of Pervious Pavements on Acid Rain	Newtown Middle School Mary Joy Troxel
E0819	Ethan Monceaux	Is Using Sand or Soil as a Foundation Better for the Stability of a Bridge that is Near Water During an Earthquake?	Orefield Middle School Brian Holtzhafer
E0820	Arti Dhareshwar	Does Insulation Material Affect Temperature of Heat Trapped?	Springhouse Middle School Jennifer Karetsky

MATHEMATICS

E0901	Benjamin Newman	An Investigation of the Normality of the Square Root of Five	Chester County Homeschool Margaret Greene
E0902	Jhanvi Dasaka	Orbital Eccentricity: How Are the Orbits of Planets Determined?	Holland Middle School Dave Curry
E0903	Grace Hamilton	What is the Best Short/Long-term Approach to Investing?	Holicong Middle School Carrie Bannon
E0904	Cordell Cheng	Financial Fractals	Abington Junior High School Ed Steinhardt
E0905	Emma Boggs	Investigating Beauty With The Golden Ratio	Lower Alloways Creek Township School Stacy Sherman
E0906	Addison Liu	Polyhedron Conundrum	Patton Middle School Mary Jo Knauer
E0907	Erin Kee	Dazzling Dolphins	Fernwood Avenue Middle School Valerie Flesch
E0908	Rohan Patil	Back to the Future with Vedic Math	The Independence School Susmita Nesargi
E0909	Danielle Reich	M & M - Music & Math?	Torah Academy Sheila Appel
E0910	Sam Huynh	An Experiment on Physics and Mathematics	Wilson Middle School Lynda Foxworth
E0911	Sandy Li	Who Uses it Better? Adult vs. Child	McCall Elementary School Scott Knoflicek
E0912	Neha Skandan	Pascal's Triangle	Moravian Academy Joanne Daniels
E0913	Evely Vaquero	Thermal Gradient	Indian Avenue School Mark Raybould
E0914	Riley Fulmer	Think Fast!	Alloway Township School Jessica Douglass

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E0915	Sierra Gozzi	Softball Pitching	C.C.A. Baldi Middle School Phil Carr
E0916	Joseph Riccitelli	Stock Shock	St. Anastasia School Gina Riccitelli
E0917	David Stokarski	Accelerated Algorithms	Stokarski Homeschool Jeneene Stokarski
E0918	Amiya Kumar	Spiderman vs. Indiana Jones: Which Release Angle Would Propel the Swinger the Farthest Depending on its Mass?	Manalapan-Englishtown Middle School Marie Behnke

MEDICINE/HEALTH

E1001	Maria Medori	How Much Sugar is in Soda and Other Popular Drinks?	Ursuline Academy Nicole Williamson
E1002	Brandon Decker	Does Fluoride Strengthen Teeth?	E. T. Richardson Middle School Jim Conlin
E1003	Sriman Selvakumaran	Effects of Food-based Natural Compounds on Cancer Cells Growth	Great Valley Middle School Lee Bettenhausen
E1004	Kate Landis	PANDAS Personality Preference	Penn View Christian School Lisa Reichley
E1005	Evelyn Foster	Simple and Complex: The Effect of Different Carbohydrates	Holicong Middle School Robert Meletti
E1006	Prathysha Kothare	Fighting the Atherosclerosis Killer: Understanding the Impact of Antioxidants on LDL Oxidation	Orefield Middle School Dianne Haberstroh
E1007	Brianna Smith	Calories: What Kind of Nut Contains the Most Chemical Energy?	Cedarbrook Middle School Beth Kenna
E1008	Ariel Baiano	Does Gluten Affect Digestion?	Toms River Intermediate East Sylvia Piznik
E1009	Alan Rendzak	Developing an Artificial Pancreas	Crest Memorial School Matthew Fritz
E1010	Nadia Sheikh	Effects of Caffeine on Short Term Memory	Campus Community School Eric Morgan
E1011	Anthony Sandone	Seal The Moisture: Which Moisturizer Works The Best?	Oldmans Township School Jason Winistorfer
E1012	Mari Adamson	I Can't Liver Without You!	Orefield Middle School Jason Klinger
E1013	Kanishk Nazareth	The Effect of a Reward on the Human Memory	Lenape Middle School Erica Dillman
E1014	Zoe Peters	Does the Beat Affect Your Beat?	Jefferson School Jennifer Chowdhry
E1015	Lia Dorio	Do the Three Types of Cone Cells in the Human Retina Fatigue at the Same Rate?	Bishop Schad School Dana Ruegger
E1016	Viraj Joshi	Can 3D-Printed Orthosis Be Produced More Efficiently and Effectively Than Traditional Orthosis?	Patton Middle School Mary Jo Knauer
E1017	Race Caruso	Corrosive Cola	Jefferson School Jennifer Chowdhry
E1018	Savannah Sakaguchi	The Heart of Activity	Oldmans Township School Jason Winistorfer
E1019	Claire Bolarinwa	How Does Lung Capacity Change with Age?	Springer Middle School Jonathan Sypher

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E1020	Joshua Delbuono-Crawford	What is the Best Food Substance that Slows the Growth of Bacteria?	Philadelphia Academy Charter High School Joseph Egan	
E1021	Carolyn Almonte	Inhibiting a Neurodegenerative Disease Trigger: The Effect of fl-N-Methylamino-L-Alanine & L-Serine on California Blackworm Dorsal Blood Vessel Pulsations & Peristaltic Crawling	Youth Achievers' Committee Sherita Singleton	
E1022	Kellilyn Wissman	Which Brand of Disinfecting Kills the Most Bacteria?	Philadelphia Academy Charter High School Joseph Egan	
E1023	Grace Buss	Does a Sugar High Create an Academic High?	Moorestown Upper Elementary School Carol Herb	
MICROBIOLOGY				

I VII C				
E1101	Jillian Troth	Sports Bugs: Exploring Microscopic Worlds of Sports Facilities	Holicong Middle School Robert Meletti	
E1102	Sylvia Cho	Organic vs. Conventional	Penn Alexander School Stephanie Kearney	
E1103	Smitha Krishnan	Silver Bullet for Bacteria	Great Valley Middle School Lee Bettenhausen	
E1104	Carlyn Gaskill	Man's Best Friend	Oldmans Township School Jason Winistorfer	
E1105	Sebastian Turman	Growing Bacteria	Mariner Middle School Kathleen Fisher	
E1106	Rylie Gantz	Which Soap Eliminates the Most Bacteria to Your Hand?	Upper Pittsgrove School Danielle Taulane	
E1107	Lana Van Note	Which Polystyrene Material Can Microorganisms Biodegrade Most Effectively?	Toms River Intermediate North Kathleen Keller	
E1108	Madeleine Jackson	Cleaning Power of Antibacterial Products	Campus Community School Eric Morgan	
E1109	Andrei Birladeanu	Daphnia and Water Toxicity	C.C.A. Baldi Middle School Matthew Scanlan	
E1110	Bianca Soutar	Turn Up the Heat	Newark Charter School Andrea Narvaez	
E1111	Amanda McCorkindale	Does Varying Lengths of Microwave Radiation Affect Organisms Differently?	Toms River Intermediate North Kathleen Keller	
E1112	Zoe Boynton	The Truth About Soap	Campus Community School Eric Morgan	
E1113	Jane Cohen	Antibiotics: Yes or No?	William Allen Middle School Karla Parnagian	
E1114	John Limjoco	Bacteria: Fair Weather Fan?	Haddonfield Friends School Ben Chen	
E1115	Ravi Nicholas Balasubramanian	Mathematics in the Microworld: The Geometry of Flocking by Volvox	French International School of Philadelphia Valerie Denny	
E1116	Ling Xu	The Rate of Mold Growth on Various Breads	Holicong Middle School Carrie Bannon	
PHYSICS				
E1201	David Yan	Does the Mpemba Effect Exist?	HB DuPont Middle School Terri Eros	
E1202	Amy Morales	Reflectivity of Light and Albedo	Indian Avenue School	

Impact of Solutes on the Rate of Cooling of Liquids

E1203

Matthew Conway

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William G. Rohrer Middle School

Mark Raybould

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
E1204	Trey Lodge	How to Optimize a Looping Pendulum	Tug Academy H. Patricia Lodge
E1205	Anthony Bevis	Magnetism	Oldmans Township School Jason Winistorfer
E1206	Elizabeth Iwasyk	Voltage vs. Temperature	St. Andrew School - Newtown, PA Emily DeLaurentis
E1207	Sohaib Nauman	The Effect of Different Types of Wingletson a Foam Plane	Springhouse Middle School Daniel Christman
E1208	Thomas Jiang	How Do Different Strengths of Magnets Affect the Shape of Alpha Radiation Tracks?	Manalapan-Englishtown Middle School Marie Behnke
E1209	Nathan Hitchner	Amperage Draw	Alloway Township School Debra Dilks
E1210	Sarah Zhang	What Type of Liquid Generates the Most Static Electricity?	West Vincent Elementary School Erin Flexner
E1211	Michael Gatto	Effect of Number of Blades on a Wind Turbine	Gwynedd-Mercy Academy Elizabeth Santangelo
E1212	Aryan Azime	Measuring the Speed of Light	C.C.A. Baldi Middle School Gloria Cicirello
E1213	Rebecca Clay	Break the Tension	Holy Child Academy Scott Hartsock
E1214	Carly Walker	Lacrosse: Center Channels Effect on Force and Distance	Holicong Middle School Robert Meletti
E1215	Kevin Giddings	Gauss Rifle	Penn Alexander School Stephanie Kearney
E1216	Lilly Rice	How Quickly Does a Tennis Ball Loose Its Bounce?	Ursuline Academy Nicole Williamson
E1217	Andrew Loh	Particles in the Mist: Detecting Radioactive Particles Decay with a Cloud Chamber	Manalapan-Englishtown Middle School Kathleen Whitney
E1218	Jonathan Cheslo	Magnetic Train	Cheslo Home School Jane Cheslo
E1219	Cameron Baldwin	I Like Big Putts and I Cannot Lie	Beacon Middle School Kathleen Swingle
E1220	Gary Gould	Bounce	Broad Street School Charlene Hodinka
E1221	Maria Badiu	Average of a Light Bulb	William Henry Middle School Christine Barrett-Miller
E1222	Tanvi Pulipaka	How Does the Number of Fins on a Rocket Change It's Altitude?	Spring Ford 7th Grade Center Elizabeth Croll
E1223	Elias Vincent	Truss Busters	St. Agnes School Kimberly Frame
E1224	Daly Ewing	Does Flex Affect Speed and Accuracy?	St. Andrew School - Drexel Hill, PA Dina Connors
E1225	Tyler Bartman	Headlights at Night	Orefield Middle School Thomas Bryant

PRESEN	FOR	EXHIBIT	SCHOOL & SPONSOR
ZOC	LOGY		
E1301	Will McQueston	Mosquito Massacre	Alloway Township School Debra Dilks
E1302	Kevin Guo	Assessment of the Toxicity of Artificial Food Dyes Using Daphinia Magna as a Model	Great Valley Middle School Lee Bettenhausen
E1303	Elizabeth Innocenzo	S.O.S Save our Sea Life	St. Margaret Regional School Regina Butterworth
E1304	Victoria Sindlinger	Birdwing Shape Across Different Habitats	Sindlinger Homeschool Randell Sindlinger
E1305	Atara Saunders	The Effect of High Calorie Diet on Alzheimer's Disease	Cedarbrook Middle School Beth Kenna
E1306	Amy Verdi	Hot or Cold Gold(fish)?	Newark Charter School Andrea Narvaez
E1307	Isabella Onofrietti	Can Natural Substances at as Pesticides to Keep Insects Away?	Toms River Intermediate North Kathleen Keller
E1308	Thomas Parkell	What's Better? Store Bought or Farm Fresh Eggs?	Mannington Township School Nancy Anderson
E1309	Zoszia Zabrenski	Let's Get Cracking	Owen J. Roberts Middle School Mark Hofer
E1310	Alayna Gigliotti	Color Me Hungry	William Henry Middle School Cheryl Tyrell
E1311	Emily Hohenleitner	Which Foods Help Egg Shell Durability For Chickens?	Lenape Middle School Jennifer Yeager
E1312	Sabrina Ost	Soothing Scents? Which Scent Will Reduce Anxiety in Rats?	Orefield Middle School Christie Schlaner
E1313	Heather Mello	A-maze-ing Mouse	Orefield Middle School Dianne Haberstroh
E1314	Abigail Kirsopp	The Musical Maze of Mice	Orefield Middle School Dianne Haberstroh
E1315	Andrew Mullen	The Best Habitat for Crayfish is	C.C.A. Baldi Middle School Matthew Scanlan
E1316	Ashley Conant	The Effect of Music on Ring-Tailed Lemurs	Fernwood Avenue Middle School Valerie Flesch
E1317	Mitchell Smith	Canine Intelligence	Towle Institute Donna Chandler
E1318	Zia Reed	Robo Roach	Orefield Middle School Christie Schlaner
E1319	Victoria Carlson	Horses, Humans and Emotional Contagion	Holicong Middle School Robert Meletti
E1320	Phoebe You	The Most Favorite Food Flavor Award Goes To	McCall Elementary School Patricia Collins
TEAN	A PROJECTS		
E1401	Nathan Krachman Lukas Patruskey	The ACHIEV3R Daily Tasks Robot	Moorestown Upper Elementary School Carol Herb

	Lukas Patruskey		Carol Herb
E1402	Manuel Thomas Maria Thomas	Effect of Bromelain on Protein Digestion	Marsh Creek Sixth Grade Center Jen Bergman
E1403	Lisa Kien Judy Luong	Can Gum Chewing Improve Test Scores?	Sharswood School Scott Valentine

PRESENTOR		EXHIBIT	SCHOOL & SPONSOR
E1404	Camryn Bostick Amber Simmons	Rethink Your Drink	Arts Academy Charter Middle School Jennifer Cole
E1405	Calvin Emerick Alex Esenyan	The Amazing Growing Scoby	Newark Charter School Andrea Narvaez
E1406	Lauren Nonnenmocher Callie Wood Ryane Wood	Is Crest The Best?	Pennsville Middle School Cherie Burns
E1407	Gianna Rossetti Gabriela Garcia	How Does Anxiety Affect Test Scores?	Ventnor Middle School Rochelle Gimmillaro
E1408	Faith Albertson Valerie Duffey	Candy Chromatography	Tredyffrin-Easttown Middle School Nancy Adams
E1409	Damairz Perez Jace Garcia	Freezing Salts	ExCel School Michael Totino
E1410	Becca Dillon Samantha Sobocinski	Putty Palooza	Newark Charter School Andrea Narvaez
E1411	Ella Seiler Madison Smith	Turbo Turning	Newark Charter School Andrea Narvaez
E1412	Jessica Lip Ivy Wen	The Disappearing Act	Universal Creighton Charter School Brian Cameron
E1413	Abigail Reichley Keturah Landis	Fruit Fly Frenzy	Penn View Christian School Lisa Reichley
E1414	Regan Stillman Madison Watt Madison Galias	Eating Iron	Jordan Road Elementary School Liz Lichtenstein
E1415	Sean O'Sullivan Bridget Philbin	It Just Makes Sense	St. Margaret Regional School Regina Butterworth
E1416	Katherine Hansell Danielle Mehlmann	Does the Color of a Drink Affect a Person's Perception of its Taste?	St. Jude School Anita Marko
E1417	Madison Wilson Gabrielle Cadden	Star Trails: Color Coding the Night Sky	Arts Academy Charter Middle School Jennifer Cole
E1418	Madison Smith Banks Darrian	Preservatives In Fast Food Burgers	Quinton Township School Shane Manuel
E1419	Jennifer Jimenez Isabel Alvarez	Keeping it Warm	Indian Avenue School Mark Raybould

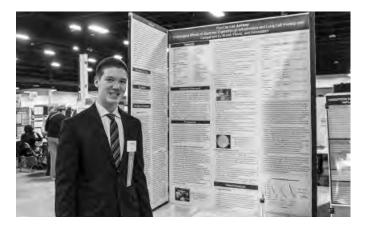
CONSUMER SCIENCE

E1501	Chaelee Crane	Diaper Dooty	North Brandywine Middle School Michelle Kreger
E1502	Kaila Colon	What Brand of Peanut Butter Tastes Better - Commercial or Organic?	Bishop Schad School Dana Ruegger
E1503	Joseph Evans	Soak It Up	Cherry Street School Heather Engler
E1504	Michael Ferry	Which Wicking Works?	St. Anastasia School Victoria Trainer
E1505	Chris Aley	Corncob Construction Panels	Arcola Intermediate School Cathy Stewart
E1506	Olivia Mistichelli	The Skinny on Moisturizers	Oldmans Township School Jason Winistorfer
E1507	Ricshawn Walker	Coca Cola vs. Pepsi	West Oak Lane Charter School Jamie Wesztergom

PRESENT	TOR	EXHIBIT	SCHOOL & SPONSOR
E1508	Abhimanyu Nangunoori	How Can a Brand Name Affect How People Taste Things?	Lenape Middle School Jennifer Yeager
E1509	Rachael Millay	Wipe It Away	Holy Child Academy Scott Hartsock
E1510	Brittan Butler	Cookie Madness!	Haddonfield Friends School Ben Chen
E1511	Brianna Wright	Clothing Catastrophe	Renaissance Academy-Edison Charter School Kris Barcus
E1512	Ethan Sallard	Super Sippers: Pickup Trucks vs. SUVs	Signal Hill Christian Academy David Sallard
E1513	Dmitrii Gradinari	Do Slow-Release Fertilizers Win the Race?	C.C.A. Baldi Middle School Matthew Scanlan
E1514	Madison Giovenco	Which Brand of Antacid is the Most Effective?	Toms River Intermediate North Kathleen Keller
E1515	Alyssa Miletta	Does the Brand of Cupcake Mix Effect the Height of the Cupcake?	Pittsgrove Township School Emily MacNeill
E1516	Derek Deihl	Can Hair Damage be Repaired with Repairing Agents?	Holicong Middle School Jesse Breeden
E1517	Olivia Lovett	How Much Sugar is in Soda and Gatorade?	Jordan Road Elementary School Randy Kohr







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John Disston

SPECIAL AWARDS DIRECTOR

Mickey Disston

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Teams (6-8)	Darlene Jones
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