65th Annual St. Mary's County Science and Engineering Fair

January 17, 2025

Proud Supporters of the
St. Mary's County Science and Engineering Fair

ST. MARY'S COUNTY SCIENCE AND ENGINEERING FAIR
2025 WELCOME AND GUIDE

We welcome you to the 2025 St. Mary's County Science and Engineering Fair, our 65th annual fair. Students in public, nonpublic, and home schools in St. Mary's County have submitted their science exhibit displays and presentations in a virtual presentation for review before the fair. Today, judges will see the presentations first-hand, and the judging panels will interview students.

The exhibits result from projects generated by the student's interest in science and engineering. These students have taken on the role of scientists through their research. The core of science is inquiry, research, and discovery. Engineering applies science concepts through engineering design and testing. The students are offered a venue at the Science and Engineering Fair, where they may present their findings to their fellow students and the public. The Science and Engineering Fair Board hopes this experience is a steppingstone to even greater scientific endeavors.

Exhibits are entered in two divisions: Junior (grades 6 through 8) and Senior (grades 9 through 12). In each division, exhibits are placed in one of the 22 categories listed in this program. Each exhibit is assigned a project number listed in this program. Corresponding numbers are placed on the exhibits. All exhibits must adhere to the size and safety regulations specified by the Prince George's Area Science Fair Association and endorsed by the St. Mary's County Science and Engineering Fair Board.

Selected exhibits from the St. Mary's County Science and Engineering Fair will be chosen to be entered in the Prince George's Area Science Fair, which will be held in person in March 14 - 15, 2025. Senior Division Grand Prize winners at the Prince George's Area Science Fair may have the opportunity to attend the 2025 Regeneron International Science and Engineering Fair, which will be held on May 10 - 16, 2025, in Columbus, Ohio. The Regeneron International Science and Engineering Fair is the world's largest international STEM research competition for high school students. This year, they are celebrating ISEF's 75th anniversary!

The St. Mary's County Science and Engineering Fair Board would like to thank the parents, teachers, mentors, and others who have made the discovery process real to these students.

St. Mary's County
Science and Engineering Fair Sponsors

We list our sponsors early in our program to illustrate their importance to the St. Mary's County Science and Engineering Fair. We could not hold this event without their support. Their contributions are used to set up and run the Fair, buy Fair supplies, and provide prizes and awards. These sponsors also support students selected to attend the Prince George's Area Science and Engineering Fair and Regeneron International Science and Engineering Fair. We sincerely thank them and are indebted for their sponsorship.

Corporate and Community Sponsors

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Southern Maryland Resource Conservation and Development Board
St. Mary's County Public Schools
St. Mary's Ryken High School
St. Mary's Soil Conservation District
The Patuxent Partnership

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As our science fair grows, we are in need of additional members. If you are interested in serving with this committee in any capacity, we would be very happy to have you participate. Please see any board member to express your interest.

Special Thanks!

Thank you to the many teachers and volunteers who assisted throughout the Science Fair event. St. Mary's County Teachers and School Science Fair Coordinators for encouraging Science Fair participation. Mentors of participants for advice and expertise provided to students. Parent(s)/Guardian(s) of participants for encouragement and support throughout the Science Fair process. Student participants for having questioning minds and seeking to solve real problems in science, mathematics, and engineering.

ST. MARY'S COUNTY
SCIENCE AND ENGINEERING FAIR BOARD AWARDS

The most important reward students entering the Science and Engineering Fair can receive is the experience and sense of accomplishment they receive from conducting a scientific investigation and exhibiting their achievements to their fellow students and the public. The following additional recognition will be given to those projects judged to be superior:

Grand Award Plaques	Junior Division Senior Division
First Place Medals and Ribbons	Each category in each division
Second Place Medals and Ribbons	Each category in each division
The Karine Ingersoll Sparkle Awards	Several awards will be given to exhibitors who explain their projects with the most enthusiasm, rapport with listeners, and talent for effective communication.
Special Merit Awards	Civic, professional, and/or community groups could give Special Merit Awards. The individual sponsors of these awards set the determining criteria.

NOTE: The judges are authorized to withhold an award in any division or subject area if the exhibits are judged not to be of high enough caliber.

Don Bewick
Kody Bowling
Carmen, Dr. Cantemir-Stone
Edith, Dr. Carron
Hank Caruso
Chris Cusic
Anthony DiCenso
Tom Dunn
George Erichsen
Miles Ervin
Gregory Fournier
Jerry Frank
Karl Geist
Edward Gesser
Tiffany Gill
Nicolette Glut
Paulina Gomez
Kaylee Guethlein
Logan Hawker
Edward Hogan
Fernando Jacinto
Greg Jelic
John Johnson
Stefanie Landeweer
Mike Lange
Katelyn Lancaster
Buddhadeb, Dr. Mallik
Amanda Marge
Erik McCaffery
Nancy, Dr. McGuire
Brian Minerly
Gabriel Murray
Greg Olson
Joe Pham
Andrew Powers
Farhan Qazi
Annette Ragland
Frank Reiser
Wulfe Retzlaff
Matt Rhinehart
David Roberts
Brianna Rourke
Dr. Johan Schijf
Connor Shaffer
Benjamin Skelley
John Speredelozzi
Sara Stephen
Barrett Straub
Adam Sweere
Bill Triplett
Robert Utzinger
Dillon Vadgama
Melissa Wermers
Lucille Winston
Frank Yelinek
Aaron Young

SENIOR DIVISION

BEHAVIORAL AND SOCIAL SCIENCES

S-0201	Megan Brannigan	Technology and Memory Retention	SMRHS
S-0201	Margaret Hutchinson	Technology and Memory Retention	SMRHS
S-0202	Veronica Brickhaus	Effects of Physical Stress on Reaction Time in Adolescents	SMRHS
S-0202	Emmaleigh Zagrodnichek	Effects of Physical Stress on Reaction Time in Adolescents	SMRHS
S-0203	Rawlins Don-Simmons	Heart Warming Heart Beats	SMRHS
S-0203	Madison Wood	Heart Warming Heart Beats	SMRHS
S-0204	Alexa Yingling	The Effect of Math on Heart Rate	SMRHS
S-0204	Gianna Lopez	The Effect of Math on Heart Rate	SMRHS

BIOCHEMISTRY

S-0301	Mariam Ahmad	Catalase Ablaze	GMHS

BIOMEDICAL ENGINEERING

S-0501	Stephen Krasznay	miniOpto	GMHS
S-0501	Rishi Sheth	miniOpto	GMHS
S-0502	Susanna Nilsson	Wheel-Ease	GMHS

EMBEDDED SYSTEMS

S-1001	Arianna DePaola	The DTP Vest	FCTC
S-1002	Allison Esche	Stove Safety Alarm	FCTC
S-1002	Alison Richards	Stove Safety Alarm	FCTC
S-1003	Elijha Hella-Myers	Automatic Medicine Dispenser	FCTC
S-1004	Dileinka Jimenez	Safety Necklace	FCTC
S-1005	William Leopold	Mail Detector	FCTC
S-1006	Nathaniel May	Good Vibes	FCTC
S-1007	Garrett Szymendera	Dog Alarm	GMHS
S-1008	Hayden Meadors	Gutter Guard Deluxe	FCTC

ENERGY: SUSTAINABLE MATERIALS AND DESIGN

S-1101	Khadija Talha	Flying Sustainable: The Cleaner Way to Fly	GMHS

ENGINEERING TECHNOLOGY: STATICS AND DYNAMICS

S-1201	Aidan Clancy	Generating Electricity with a Portable Multi-Source Generator	GMHS
S-1202	Audrey Gutekunst	Spike Saver	GMHS
S-1203	Colton Longobardi	Disability Clip	FCTC
S-1204	Tyler Romanowski	Drone that Lands on Vertical Walls	FCTC
S-1205	Anna Hair	Scissor-Jack in The Box	FCTC
S-1206	Colin Taylor	Safe Grate Cheese Grater	FCTC

ENVIRONMENTAL ENGINEERING

S-1301	Charlie Bates	Bay Observation Drone Interchangeable Payload Attachment	FCTC
S-1302	Alicia Griffin	With You	FCTC
S-1303	Lily Mitchell	Microplastic Open Water Filter using Ferrofluid	FCTC
S-1304	Gabriel Roberts	Autonomous Plant Growing System	GMHS

MATERIALS SCIENCE

S-1401	Connor Denihan	Ultrasound Evasion	GMHS
S-1402	Paul Savvas	Optimizing 3D Printed Shock Absorption	GMHS
S-1403	Marisa Shick	The Laptop Life Saver	GMHS
S-1404	Charles Watts	Golf Ball Picker Upper	FCTC

PLANT SCIENCES

S-1801	Ryan Cory	How Does Acid Rain Affect Plant Growth?	GMHS

ROBOTICS AND INTELLIGENT MACHINES

S-1901	Collin Haycraft	Sky High Service (S.H.S)	FCTC
S-1902	Everett Moulds	The BayROV	FCTC

SYSTEMS SOFTWARE

S-2001	Amilia Hernandez-Toro	HowRUFeeling? An AI Powered Journal	FCTC

TECHNOLOGY ENHANCES THE ARTS

S-2101	Abril Esparza	TouchBraille: A Tablet for the Blind	GMHS
S-2101	Angela Hou	TouchBraille: A Tablet for the Blind	GMHS

JUNIOR DIVISION

ANIMAL SCIENCES

J-0101	Anna Carrillo	What Music Do Dogs Prefer?	FAW
J-0102	Logan Maday	How Do Mud Crabs React to Stress?	SRMS
J-0103	Samuel Blair	Caterpillar Olympics	SRMS

BEHAVIORAL AND SOCIAL SCIENCES

J-0201	Vivian Carey	Studying In Virtual Reality?	SRMS
J-0202	Jason Cheatum	Oops! Didn't see that!	SRMS
J-0203	Téa Combs	Fuzzy Companion	SRMS
J-0204	Marivella DeSavage	How Does Background Noise Affect Concentration?	SRMS
J-0205	Leeland Johnson	Sport Reactions	SRMS
J-0206	Evelyn Miller	Musical Triggers: How Does Music Affect the Body?	SRMS

BIOMEDICAL AND HEALTH SCIENCES

J-0401	Elizabeth Scull	Heart Rate Monitor	SRMS
J-0402	Alise Hamilton	Blood Clotting Simulation	SRMS
J-0403	Krisha Shah	Which Moisturizer?	SRMS

CHEMISTRY

J-0701	Nora Hawkins	The Coffee Chronicles	SRMS
J-0702	Micah Lorrius	Bottle Water vs Tap: A pH Story	SRMS
J-0703	Kira Shah	Electricity Changes pH in Salt Values	SRMS
J-0704	Ruhi Sheth	Testing Different Molarities with Sodium Hydroxide	SRMS
J-0705	Beatrice Sullivan	CHEESE!	SRMS
J-0706	Will Whitmer	Phosphorus Reduction in Water	SRMS

EARTH AND ENVIROMENTAL SCIENCES

J-0901	Austin Frazier	Co2 Trap Is It Effective	SRMS
J-0902	Layla Freeman	Crystal Clear: Water Filtration	SRMS
J-0903	Aubree Garza	Biodegradable Packaging	SRMS
J-0904	Everett Grabenstein	Can Plants Help Prevent Soil Erosion?	SRMS
J-0905	Sophie Grable	Heating It Up!	SRMS
J-0906	Kayla Gray	Soil pH	SRMS
J-0907	Ethan Hardy	The Water Filtration Process	SRMS
J-0908	Nathan Nilsson	Oyster Shells: Is Bigger Better?	SRMS
J-0909	Jordann Parham	Dangerous Detergents	SRMS
J-0910	Antonia Ruminski	What is the Best Fire Pit Shape?	SRMS
J-0911	Draven Smith	Microplastics in Deli Turkey	SRMS
J-0912	Ariana Sunjaya	Is Composting Beneficial?	SRMS
J-0913	Logan Varela	Solar vs. Wind vs. Hydro	SRMS
J-0914	Adam Venckus	Plant and Soil Erosion Study	SRMS
J-0915	Jane Venendaal	Recycled or Trashed	SRMS

EARTH AND ENVIRONMENTAL SCIENCES

J-0916	Connor Wells	Ghastly Gravity	SRMS
J-0917	Vera Wiest	Does Soap Stay?	SRMS
J-0918	Alexander Wood	Which Water Filter Works the Best?	SRMS

EMBEDDED SYSTEMS

J-1001	Ellis King	Auditory Bird Tracker	SRMS
J-1002	Mikey Lisa	Rain, Rain Go Away	SRMS

ENERGY: SUSTAINABLE MATERIALS AND DESIGN

J-1101	Glenn Gilley	Miniature Wind Mill	SRMS
J-1102	Alhan Alam	Energy in Wind Turbines	SRMS
J-1103	Sullivan Allan	Farm to Plug	FAW
J-1104	Philip Bain	Heat In Hue!	SRMS
J-1105	Corbin Beans	Water Battery	SRMS
J-1106	Abeegail Douglas	Testing Ways to Build Wind Turbines	SRMS
J-1107	Eli Grossman	Propeller Blade Energy Efficiency	SRMS
J-1108	Annika Henderson	The Mini-Dump Truck	SRMS
J-1109	Zell Kucharczyk	Can an Engine Run on Water?	SRMS
J-1110	Lillian Levine	Energy Comparison Solar vs. Wind	SRMS
J-1111	Jacob Lovelace	A New Portable Battery	SRMS
J-1112	Oscar Neto	Arduino Solar Tracker	SRMS

ENGINEERING TECHNOLOGY: STATICS AND DYNAMICS

J-1201	Gavin Coontz	"My Back!" Elderly Injury Prevention	SRMS
J-1202	Thomas Fucito	Vortex Generator Effects on Critical AOA	SRMS
J-1203	William Glotzbach	Best Way to Make a Blanket Fort	SRMS
J-1204	Cynthia Noyes	Propulsion and How to Make a Maglev Train	SRMS
J-1205	Paxton Spatig	The Frog Problem	SRMS
J-1206	Aria Walsh	Jupiter Drone Propeller	SRMS
J-1207	Mekhi White	Magnetic Electromagnetic Induction	SRMS

ENVIRONMENTAL ENGINEERING

J-1301	Ethan Becker	Cleaning up the Ocean	SRMS
J-1302	Noah De la Torre	How Effective are Wind Turbines?	SRMS
J-1303	Andrew Ellerbe	Mole Marker	SRMS
J-1304	Allen Gilley	Wind Turbine	SRMS
J-1305	Ryan Glauner	Green CO2 Removal System	SRMS
J-1306	Tyler Haney	Full Pool Water Skimmer	SRMS
J-1307	Samuel Keith	Water Filter Wonders	SRMS
J-1308	Adrian Lopez Perez	Making Better Solar Panels	SRMS
J-1309	Joey Ross	Keep It Cool	SRMS
J-1310	Caleb Shymansky	Earthquake Resistant Structures	SRMS
J-1311	Emma Starr	Bridge Structures: Pros and Cons	SRMS
J-1312	Diana Wyman	Solar Clear Water	SRMS

MATERIALS SCIENCE

J-1401	Jack Flaherty	How Parachutes Affect Terminal Velocity	SRMS
J-1402	Joseph Gesser	More Visible Road Lines	SRMS
J-1403	James Jahn	Water Proofing Paint with Styrofoam	SRMS
J-1404	Edgar Naiva	New Soccer Shin Guard	SRMS
J-1405	Simrit Raheja	Beeswax vs. Plastic Wrap	SRMS
J-1406	Scarlett Reid	The Best Odor Eliminator	SRMS
J-1407	Isabella Renn	The Floating Pennies	SRMS
J-1408	Madeleine Smith	Can Pointe Shoes Be Waterproofed?	SRMS
J-1409	Alex Vo	No More Dust	SRMS
J-1410	Reagan Weinstein	Solar Powered Dog Tracker	SRMS

PHYSICS AND ASTRONOMY

J-1701	Kyler Cotugno	Planforms - Lift Examination	SRMS
J-1702	Alex Pope	Tennis Physics	SRMS
J-1703	Jaylynn Rodocker	Weather or Not	SRMS
J-1704	Brian Shafer	Roll With It	SRMS

PLANT SCIENCES

J-1801	Adeline Ashby	Hydro-Helpers	SRMS
J-1802	Mhi'a Rose Empederado	Homemade Fertilizers vs. Store Bought Fertilizers	SRMS
J-1803	Zoey Horner	Which Music Genre Boosts Plant Growth?	SRMS
J-1804	Talan Jones	A Celestial Garden: Cress in Space	SRMS
J-1805	Morgan McCormick	Soil Moisture and Plant Growth	SRMS
J-1806	Kameron Tennity	Magnetic Fields Engaged with Plants	SRMS

ROBOTICS AND INTELLIGENT MACHINES

J-1901	Julian Gaddy	The Maze Solving Drone	SRMS
J-1902	Fritz Geineder	Electrical Hardware Delay Circuit	SRMS
J-1903	Kiel Siu Toung	The Recurrent Reactor	SRMS

SYSTEMS SOFTWARE

J-2001	Elliot Rogers	The Right Direction	SRMS

TECHNOLOGY ENHANCES THE ARTS

J-2101	Milo Jennings	Windmills for Car Energy	SRMS
J-2102	Lester Melanson	Comparing Communication Aids	SRMS
J-2103	Devin Wiggins	Can Video Games be a Form of Exercise?	SRMS

Father Andrew White, S.J. School
LEADERSHIP ✣ FAITH ✣ ACADEMICS

Congratulations to all the 2025 St. Mary's County Science and Engineering Fair award winners who will be continuing to the Prince George's County Area Science Fair!

Best of luck!

FORREST TECHNOLOGY CENTER
Real World. Real Learning.

SPRING RIDGE HARRIERS

PAST GRAND AWARD WINNERS

Year	Award	Name	Title
1962	Senior Award:	Robert Blevins	Tone Transmitter and Receiver to Control a Boat
	Junior Award:	Allen Cheuvront	Controlled Reflexes of Fishes
1963	Senior Award:	Jon A. Swenson	Transistorized Metal Locator
	Junior Award:	Allen Cheuvront	Effects of Sound on Plant Growth
1964	Senior Award:	Eva Barbarich	Drugs vs. Radiation
	Junior Award:	James Boyd	Lungless Frogs
1965	Senior Award:	James Wible	A Solar Spectroscope
	Junior Award:	Neil Ferri	Bacteriostasis
1966	Senior Award:	June Ferrari	Effect of Legume Protein Diet in Albino Rats
	Junior Award:	Neil Siegel	The Anatomy of a Vortex
1967	Senior Award:	Glen Gerberg	Applied Telemetry Toward Acceleration
	Junior Award:	Joseph Gardner	Aerodynamics
1968	Senior Award:	James Raley	Monomolecular Reaction
	Junior Award:	David F. Kelly	Constructing a Mathematical System
1969	Senior Award:	Catherine Gohl	Cancer No More
		Alvin Marshal	Antennas for Space Communication
	Junior Award:	Charles Kohl	The Wonder of Stars
1971	Senior Award:	Margo Nansteel	Insecta - Chromosomes and Mutations
	Junior Award:	Cindy Ann Ford	What Effect Does Overcrowding Have on Fish?
1972	Senior Award:	Beverly A. Hill	Water Pollution Study
	Junior Award:	Mary M. Kelley	Recovering Silver
1973	Grand Award:	Susan M. Schlosser	Solar Energy
1974	Senior Award:	Michael Lynch	E.P.S.A.I.
	Junior Award:	Karen E. Jarboe	Oysters and Oil
1975	Grand Award:	William G. Lindsley	Aerodynamics and Designing a Wing
1976	Senior Award:	Sue Ann McDonald	The Process of Osmosis in Salmon
	Junior Award:	Ronald L. McCormick	Oil – Water Separation
1977	Senior Award:	Charles R. Daugherty	Patterns of Numbers in Sequence
	Junior Award:	Scott E. Tilson	Gravity Effects on Falling Bodies
1978	Senior Award:	John F. Iekel	The Year the East Dried Up
	Junior Award:	Barney H. Kable	Indigestion
1979	Senior Award:	Tracey Hammett	Gravitational Forces on Drosophila
	Junior Award:	Dawn Nunziato	Pinhole Cameras
1980	Senior Award:	John Iekel	Microclimates - Unseen Force
	Junior Award:	Annmarie Ingersoll	Health = Work + Diet
1981	Senior Award:	Annmarie Ingersoll	Buttoning Down Nature's Preppy Look
	Junior Award:	Christina Ingersoll	Wavelength: Chlorophyll: Growth
1982	Senior Award:	David Fortney	Mirrors and Reflections
	Junior Award:	Christina Ingersoll	Chlorophyll's Clue Commence
1983	Senior Award:	Joseph Cerrito	Solar Powered Air Ships
	Junior Award:	Preston Wood	Structural Lumber Strength
1984	Senior Award:	Annette Howard	Soxhlet Method of Extraction
	Junior Award:	Shannon Quinn	What Factors Affect Daphnia the Most?
1985	Senior Award:	Barbara Earnshaw	Function of Amyloplasts in Roots
	Junior Award:	Michelle Cardello	What Chemicals Inhibit Mold Growth?
1986	Senior Award:	Eric Fleming	Fat vs. Fat
	Junior Award:	Michelle Cardello	Purple Spots Tell the Story
1987	Senior Award:	Preston Wood	Steam Turbo Prop

	Junior Award:	Kelly Dion	Stunts That Mice Learn
1988	Senior Award:	Sotanya Rushing	The Bacterial Side of Mouthwash
	Junior Award:	Diana Gillam	The Beat Goes On
1989	Senior Award:	Christine Holmberg	Sending Messages
	Junior Award:	Jennifer Dowdell	Radio Wave Propagation
1990	Senior Award:	Heather Hoyack	Enzyme Action in Seeds
	Junior Award:	Zeena Lafeer	Too Hot to Handle Too Cold to Grow
1991	Junior Award:	Zeena Lafeer	Do They Measure Up?
1992	Senior Award:	Craig Bailey	Go With The Flow
	Junior Award:	Megan Dowdell	Bubble Count
1993	Senior Award:	Stacey O'Brien	Seasonal Changes in Estuaries
	Junior Award:	Laura Stewart	Water Wisdom
1994	Senior Award:	Jennifer Dowdell	Leaving the Competition in Tears
	Junior Award:	Jon Eichenmuller	NPV vs. Wax Moth Larva
1995	Senior Award:	Megan Dowdell	What's the Frequency, Kenneth?
	Junior Award:	Andrew Troutman	Ponder This
1996	Senior Award:	Cassandra Lot	Dissolving Struvite Stones
	Junior Award:	Christina Resico	Water... Enjoy It Now; Search For It Later
1997	Senior Award:	Kim Wessells	Battling for Dominance: Onion vs. Lettuce
	Junior Award:	Nicole Carbonaro	Domino Derby
1998	Senior Award:	Danielle Kalkofen	ELF Field Effects
	Junior Award:	Nicole Carbonaro	Vocabulary - How Do You Learn It?
	Intel ISEF:	Nicole Carbonaro (Observer)	Vocabulary - How Do You Learn It?
1999	Senior Award:	Danielle Kalkofen	Triclosan: Antibiotic Turned Mutagen
	Junior Award:	Kathleen Cox	Microwave Radiation And Bean Plants
2000	Senior Award:	Brett Darcy	Engineering An Accurate Simulation
	Intel ISEF:	Brett Darcy	Engineering An Accurate Simulation
	Junior Award:	Elise Carbonaro	Give Me A Break!
2001	Senior Award:	Kirsten Schuck	Can *Elodea densa* Survive An Oil Spill?
	Junior Award:	Garvi Sheth	Lead In Your Water
2002	Senior Award:	Nicole Carbonaro	Dancers And Hurdlers Leap For Physics
	Intel ISEF:	Nicole Carbonaro	Dancers and Hurdlers Leap for Physics
	Junior Award:	James Moderski	Boat Bows And Balloon Engines
2003	Senior Award:	Michelle Mattingly	Drums of Seawater
	Team Award:	Jeffrey Dronenburg Matthew Martz	Mad Science - Electrokinetic Propulsion
	Intel ISEF:	Jeffrey Dronenburg Matthew Martz	Mad Science - Electrokinetic Propulsion
	Junior Award:	Pierce Autry	Algae Bloom: Chemical or Natural
2004	Senior Award:	Daniel Page	A Picture is Worth 2 Thousand Numbers
	Team Award:	Kalin Kane Christianna Stavroudis	Relative Speaking…Correlations in Relativity
	Junior Award:	Julie Walker	Stumped
2005	Senior Award:	Nick Bruno	Diesel Fuel from Vegetable Oil
	Intel ISEF:	Nick Bruno	Diesel Fuel from Vegetable Oil
	Team Award:	Amber Cook Justine Crutchfield	One Fly, Two Fly, Red Fly, White Fly
	Junior Award:	Courtney Bartels	Raining Acid
200 6	Senior Award:	Nick Bruno	A Novel Compound in Organic Synthesis

	Intel ISEF:	Julie Walker	The Dust Devils Did It
	Team Award:	Stephanie Galanie Diane Mattingly	Make me a Match
	Junior Award:	Mark Ragland	Laser Com System
2007	Senior Award:	Daniel Brand	The Cost of Heat Loss
	Junior Award:	Matthew Dowdle	The Skyscraper
2008	Senior Award:	Amie Gilligan	Sound Off!
		Tony Oblen	Dead Zones: How to Save the Chesapeake
	Intel ISEF:	Julie Walker	What a MES: Mars Environment Simulator II
	Team Award:	Kristen Dronenburg Bethany Schaeffer	Punching Out Won't Hurt So Bad
	Junior Award:	Hailey Dodges	The Greater Gear
		Alex Ragland	Aeroponics vs. Hydroponics
2009	Senior Award:	Mark Ragland	Submerged Laser Communication
		Shefali Shah	The Big, The Bad, and The Small – Part II
	Intel ISEF:	Julie Walker	What a MES: Mars Environment Simulator III
	Junior Award:	Alex Ragland	International Plant Station
		Sara Moore	Feathered Flight Simulator
	Intel ISEF:	Sara Moore (Observer)	Feathered Flight Simulator
2010	Senior Award:	Kelles Gordge	Take a Deep Breath!
	Senior Award:	Amanda Dennis	Music 4 the Heart
	Intel ISEF:	Mark Ragland	Simulating Ocean Water for Video Laser Communication
	Junior Award:	Katie Jahn	Water, Water, Everywhere…Any to Drink?
2011	Senior Award:	Kelles Gordge	Critical Point of View
	Senior Award:	Aparna Sajja	Transgenic Zebratism Retinas
	Junior Award:	Nicholas Ragland	Fruits' Antioxidant "Punch!"
	Junior Award:	Annie Imhof	Monitoring Oyster Spat Growth
	Intel ISEF:	Kelles Gordge	Critical Point of View
	Intel ISEF:	Shefali Shah	To Clay or Not to Clay?
2012	Senior Award:	Kelles Gordge	Direction Detection
	Senior Award:	Alina Myers	Hydrodynamics of Boogie Boards
	Junior Award:	Nicholas Ragland	Yeast Feast
	Junior Award:	Jay Tracy	Invisible Aircraft
	Intel ISEF:	Kelles Gordge	Direction Detection
	Intel ISEF:	Sara Moore	Get Your Head in the Game
	Intel ISEF:	Connor Alsheimer	Lichtenburg Lightning
2013	Senior Award:	Mina Fahmi	iControl
	Senior Award:	Michael Lopez	Hydrokinetic Energy System
	Junior Award:	Juliana Geyer	Meteor Angle and Sediment Size vs. Material Displacement
	Junior Award:	Jaret Williams	Smart Mailbox
	Intel ISEF:	Mina Fahmi	iControl
2014	Senior Award:	Mina Fahmi	Development of a Teleoperation Robot
	Senior Award:	Michael Lopez	Rain Power
	Junior Award:	Marianne Beaulieu	Fractalception - The Art of Randomness
	Junior Award:	Alyssa Wilson	How Sweet It Is!

	Intel ISEF:	Mina Fahmi	Development of a Teleoperation Robot
	Intel ISEF:	Michael Lopez	Rain Power
2015	Senior Award:	Allyson Myers	Wind Turbines: The Deadly Truth
	Senior Award:	James Kelly	Depth Sensing Aid for the Blind
	Junior Award:	Adam Linholm	Curious Crests
	Junior Award:	Ryan Williams	Kinect Controlled Robot Arms
	Intel ISEF:	Jonathan Yu	Smart Sensors for Localizing Blade Impacts
2016	Senior Award:	Roma Kankaria	Melanoma and the Art of Resection
	Senior Award:	Jonathan Yu	Wireless Sensing for Blade Impacts
	Junior Award:	Olivia Sowa	Radiation to the Nation
	Junior Award:	Ryan Williams	STACS: Spatially Targeting Air Cooling System
	Intel ISEF:	Jonathan Yu	Wireless Sensing for Blade Impacts
	Intel ISEF:	Jay Lee	Creating a Spherical 3D Printer
2017	Senior Award:	James Kelly	Multiclass Motor Imagery Classification
	Senior Award:	Savannah Jabr	The Dimples Efficacy
	Junior Award:	Ryan Williams	Remotely Op. Planetary Exploration Rover
	Junior Award:	Tyler Ludlow	The Impact of Video Games on Cognition
	Intel ISEF:	Abigayle Polsky	New, But Reused: Recycled Insulation
2018	Senior Award:	John Podsednik Kyra Pratley William Voorhees	Prescripted Code
	Senior Award:	James Kelly	Machine Learning Application for Heart Disease Diagnosis
	Junior Award:	Peter Imhof	What Washes Well?
	Junior Award:	Tom Wilson	Vacation Irrigation
	Intel ISEF:	John Podsednik Kyra Pratley William Voorhees	Prescripted Code
2019	Senior Award:	Madelyn Chisholm	Blind Spot Camera System
	Senior Award:	Tom Wilson	Best Tour of the Store
	Junior Award:	Julia Nilsson	Population Inoculation
	Junior Award:	Peter Imhof	Best Speed for Your Buck
2020	Senior Award:	Ria Sharma	Say No to Nanosilver
	Senior Award:	Amanda Johnson	The Safety Baseboard System
	Junior Award:	Oliver Stevens	Brand/Generic: Which Dissolves Faster?
	Junior Award:	Mark Reineke	Home Siding Efficiency
2021	Senior Award:	Carter Brotherton	Too Much Acid
	Senior Award:	Jonah Chaillou	Renewable in the Pool
	Junior Award:	Braden Gutekunst	Hydro Electric Turbine
	Junior Award:	Joseph Grossman	Card Counting Combinatory Computer
2022	Senior Award:	Evan Walsh	The Pocket Charger
	Senior Award:	Jesse Burks	Effects of Pressure on Electrical Arcing
	Junior Award:	Samuel King	Self-Watering Plant
	Junior Award:	Audrey Gutekunst	Pellet Plants

2023	Senior Award:	Evan Walsh	MagFlow
	Senior Award:	Briana Rourke Zoey Dellapietro	Balance Brace
	Junior Award:	Eli Grossman	Optical Activity in Sugar Solutions
	Junior Award:	Vivian Carey	Colorful Hydroponics
	Regeneron ISEF:	Evan Walsh	MagFlow
	Regeneron ISEF:	Ava Cotroneo	Bulletproof Backpack Insert
2024	Senior Award:	Alexandra Clark	Forecasting Dengue Fever in the U.S.
	Senior Award:	Aarav Sharma	Sticky Styrofoam
	Junior Award:	Vivian Carey	Vitamin D for Dancers: Testing Outdoor Dance Floors
	Junior Award:	Catherine Fucito	Ferromagnetic Effects on Electromagnets
	Regeneron ISEF:	Aarav Sharma	Sticky Styrofoam

JF TAYLOR

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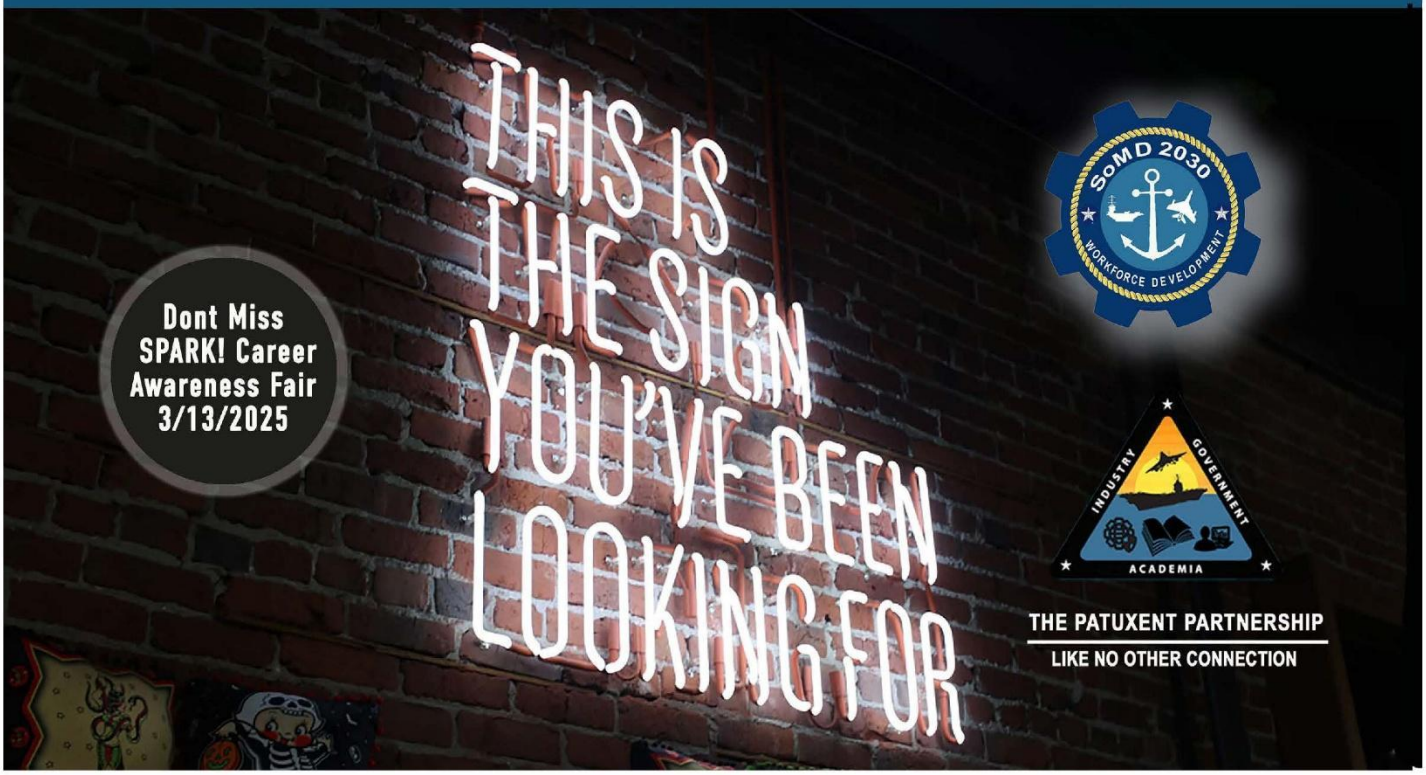
SPARK! Career Awareness Fair



SoMD 2030 is focused on building our STEM pipeline. and increasing career opportunities.

SoMD 2030 connects talented students with paid apprenticeships and internships in southern MD. It creates college internship opportunities with local industry. government. and nonprofits.

The SPARK! Career Awareness Fair provides students with face-to-face interactions and the opportunity to speak with professionals from approx. 30 organizations including the Navy, other government organizations. health. commercial enterprises and trades.

-start early in exploring your career options

Join us at the Spark Career Awreness Fair to:

- ☐ Learn about education and career options after graduating high school.
- ☐ Explore a range of opportunities from trades, manufacturing, environment, STEAM careers, job certification options, college pathways and military service.
- ☐ Connect with companies for interning, and future employment opportunities.
- ☐ Spark ideas and interests for opportunities you can then work towards during high school.

FOR MORE INFO, CONTACT:
chris.abell@paxpartnership.org

SCAN TO VISIT THE SOMD 2030 WEBSITE

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