

## Registered Participants by School

### Ambridge Junior High School

Student	Grade	Project #	Project Category	Project Title
Michael Chalupiak	8	MPH300	Physics - Intermediate (7th-8th grade)	The Science of Calorimetry
Ryan Conover	8	MPH305	Physics - Intermediate (7th-8th grade)	Does Weight Matter?
Robbie Delp	8	MPH309	Physics - Intermediate (7th-8th grade)	How Much Sugar Are We Drinking?
Allison Dibish	8	MCH113	Chemistry - Intermediate (7th-8th grade)	How Much Fat In Your Chips!
Hunter Fritz	8	MBI113	Biology - Intermediate (7th-8th grade)	Green, Green Grass of Home
Jason Gerle	8	MPH115	Physics - Intermediate (7th-8th grade)	Batter Up!
Blake Gibson	8	MPH303	Physics - Intermediate (7th-8th grade)	Does Tee Height Affect Driving Distance
Kyrsta Girardi	8	MPH304	Physics - Intermediate (7th-8th grade)	How Weight Affects Drones?
Cole Grable	8	MPH303	Physics - Intermediate (7th-8th grade)	Does Tee Height Affect Driving Distance
Tyler Holman	8	MMH301	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Heads Up!
Josh Hovan	8	MPH305	Physics - Intermediate (7th-8th grade)	Does Weight Matter?
Michael Husted	8	MCS117	Consumer Science - Intermediate (7th-8th grade)	The Best Bang For Your Battery!
Jaina Ilko	8	MCS118	Consumer Science - Intermediate (7th-8th grade)	Which White Is Right?
Bobby Jones	8	MPH122	Physics - Intermediate (7th-8th grade)	Are All Baseballs Created Equal?
Meghan Kinkade	8	MPH304	Physics - Intermediate (7th-8th grade)	How Weight Affects Drones?
Michelle Krol	8	MPH306	Physics - Intermediate (7th-8th grade)	The Power of Fruits & Vegetables!
Nathan Lambert	8	MMH113	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	The Five Second Rule!
Brionna Lee	8	MPH306	Physics - Intermediate (7th-8th grade)	The Power of Fruits & Vegetables!
Jenna McFarland	8	MES115	Earth / Space / Environment - Intermediate (7th-8th grade)	What is Hydraulic Fracturing
Austin Merlina	8	MMH301	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Heads Up!
Hannah Miller	8	MBS304	Behavioral & Social Science - Intermediate (7th-8th grade)	The Truth Behind Lie Dectectors
Brett Mueller	8	MPH305	Physics - Intermediate (7th-8th grade)	Does Weight Matter?
Brianna Mueller	8	MBS304	Behavioral & Social Science - Intermediate (7th-8th grade)	The Truth Behind Lie Dectectors
Elliott Powell	8	MMH301	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Heads Up!
Luke Protulipac	8	MBI132	Biology - Intermediate (7th-8th grade)	Western Harvester Ants
Luke Sovich	8	MBI137	Biology - Intermediate (7th-8th grade)	Inorganic vs Organic Fertilizer
Tyler Sproul	8	MPH300	Physics - Intermediate (7th-8th grade)	The Science of Calorimetry
Noah Szymoniak	8	MER141	Engineering / Robotics - Intermediate (7th-8th grade)	Riding On Air
Celeste Vargo	8	MPH309	Physics - Intermediate (7th-8th grade)	How Much Sugar Are We Drinking?
Cameron Weatherly	8	MPH310	Physics - Intermediate (7th-8th grade)	Under Pressure!
Caleb Ziemkiewicz	8	MPH310	Physics - Intermediate (7th-8th grade)	Under Pressure!

## Registered Participants by School

### Apollo-Ridge Middle/High School

Student	Grade	Project #	Project Category	Project Title
Ashley Bender	9	SBS104	Behavioral & Social Science - Senior (9th-12th grade)	How Stress Effects the Body
Allison Calderone	11	SBI106	Biology - Senior (9th-12th grade)	Human vs. Plants
Dominick Cicala	11	SMH110	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effect of Naturally Occurring Chemical Agents on Bacteria
Giovanni Cicala	9	SMH109	Medicine / Health / Microbiology - Senior (9th-12th grade)	Are These Common Water Sources Potable or Non-Potable
Alexandra DeRusha	11	SER110	Engineering / Robotics - Senior (9th-12th grade)	Self Powered Engine
Amber Earnest	9	SBS110	Behavioral & Social Science - Senior (9th-12th grade)	Music and the Mind
Devon Greenawalt	11	SES117	Earth / Space / Environment - Senior (9th-12th grade)	Effects of Fertilizer on Plants
Brianna Hodak	12	SMH122	Medicine / Health / Microbiology - Senior (9th-12th grade)	Do You Kiss Your Mama With That Mouth?
Garrett Johnston	11	SCH117	Chemistry - Senior (9th-12th grade)	Vitamin C Levels in Organic vs. Non Organic Produce
Breanna Murray	12	SER121	Engineering / Robotics - Senior (9th-12th grade)	Building Optimum Performance Levees
Melanie Nacey	11	SBI141	Biology - Senior (9th-12th grade)	The Effects of Acid Rain on Sunflower Plants
Megan Ost	12	SER122	Engineering / Robotics - Senior (9th-12th grade)	Testing the Structural Integrity of Buildings During Earthquakes

## Registered Participants by School

### Aquinas Academy of Pittsburgh

Student	Grade	Project #	Project Category	Project Title
John Griffith	8	MPH116	Physics - Intermediate (7th-8th grade)	Soundwave Obstruction; Is CO2 Behind It?
Rosemary Kenney	8	MBI121	Biology - Intermediate (7th-8th grade)	Let It Grow
Corinne Reed	8	MPH137	Physics - Intermediate (7th-8th grade)	Power With Panels
Celina Whitmer	8	MBI147	Biology - Intermediate (7th-8th grade)	Stars Growing Green

## Registered Participants by School

### Avonworth School District

Student	Grade	Project #	Project Category	Project Title
Chintha Kathiresan	9	SMH126	Medicine / Health / Microbiology - Senior (9th-12th grade)	Understanding Lactose Intolerance

## Registered Participants by School

### Baden Academy

Student	Grade	Project #	Project Category	Project Title
Rylee Kumer	6	JPE109	Physical Sciences & Engineering - Junior (6th Grade)	Create Structures to Withstand Seismic Waves
Brody Schmitt	6	JCH125	Chemistry - Junior (6th Grade)	Which Drink Stains Teeth the Most?

## Registered Participants by School

### Beaver County Christian School

Student	Grade	Project #	Project Category	Project Title
Zane Atkins	7	MBS100	Behavioral & Social Science - Intermediate (7th-8th grade)	Got My Message?
Lydia Crefeld	6	JBI106	Biological Sciences - Junior (6th Grade)	Colors and Canines
Olivia DeSarbo	8	MCH112	Chemistry - Intermediate (7th-8th grade)	Hot or Not
Maddie Eaton	8	MBS110	Behavioral & Social Science - Intermediate (7th-8th grade)	Everyone Needs A Story
Caelan Funkhouser	7	MBS113	Behavioral & Social Science - Intermediate (7th-8th grade)	Attention to Detail
Frances Hagberg	8	MPH117	Physics - Intermediate (7th-8th grade)	The Heat is On
Ethan Jolliffe	7	MPH121	Physics - Intermediate (7th-8th grade)	Shooting for Accuracy
Sophia Kindle	6	JBC109	Behavioral & Consumer Sciences - Junior (6th Grade)	Best Burn For Your Buck
Emily Lichius	8	MMH114	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Vagus, Baby!
Sam Marnik	8	MBS123	Behavioral & Social Science - Intermediate (7th-8th grade)	Is It Really Your Choice?
Audrey McMahan	7	MBI126	Biology - Intermediate (7th-8th grade)	Pumpkin Eating Contest
Audrey Michalik	6	JCH116	Chemistry - Junior (6th Grade)	Taste the Density
Ben Smith	6	JPE124	Physical Sciences & Engineering - Junior (6th Grade)	Let Your Light Shine
Daniel Stephens	7	MPH143	Physics - Intermediate (7th-8th grade)	Under Pressure
Dylan Thoman	6	JBI128	Biological Sciences - Junior (6th Grade)	Ready Set Grow
Ceajay Toney	7	MBS147	Behavioral & Social Science - Intermediate (7th-8th grade)	Color Perception
Christian Witterman	6	JBC120	Behavioral & Consumer Sciences - Junior (6th Grade)	Save Money Drink Better

## Registered Participants by School

### Bethel Park High School

Student	Grade	Project #	Project Category	Project Title
Jenna Chernicky	10	SMH107	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effects of Cleansers on S.epidermidis
Arhat Pradhan	10	SMH140	Medicine / Health / Microbiology - Senior (9th-12th grade)	Salt Effects on Bacterial Growth

## Registered Participants by School

### Blacklick Valley High School

Student	Grade	Project #	Project Category	Project Title
Colton Bartlebaugh	9	SMH102	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Path to Treatment :Homeopathic or Allopathic?
Shelby Bopp	9	SPH101	Physics - Senior (9th-12th grade)	Electric Motors
Dixie Foutz	9	SMH119	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effect of Vitamin C on Bacteria
Dillon Gongloff	9	SPH106	Physics - Senior (9th-12th grade)	Slippery When Wet
Stone Greene	12	SBS116	Behavioral & Social Science - Senior (9th-12th grade)	Are You Lying?
Ireland McIntosh-Higgins	9	SMH131	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effect of Cinnamon on Blood Sugar
Samantha Michaels	9	SCH125	Chemistry - Senior (9th-12th grade)	How Permanent are Permanent Markers?
Jake Napolitano	9	SBS130	Behavioral & Social Science - Senior (9th-12th grade)	The Mandela Effect
Jeremy Rose	9	SBI149	Biology - Senior (9th-12th grade)	Increase Protein, Increase Growth
Ava Sherwood	9	SBI156	Biology - Senior (9th-12th grade)	The Effect of Temperature on Lipase



## Registered Participants by School

### Blessed Francis Seelos Academy

Student	Grade	Project #	Project Category	Project Title
Hayley Baranowski	7	MMH102	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	How Safe is My Yoga Mat?
Hunter Connell	7	MER105	Engineering / Robotics - Intermediate (7th-8th grade)	Stable Flight
Michael Gill	7	MER113	Engineering / Robotics - Intermediate (7th-8th grade)	Does bridge design affect weight bearing capacity?
McKenney Martha	7	MCH142	Chemistry - Intermediate (7th-8th grade)	What Glue is the Strongest Adhesive?
Meredith McCalmont	7	MPH130	Physics - Intermediate (7th-8th grade)	Are more expensive golf balls worth it/
Lauren Rajasenan	7	MMH121	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	A Moldy Mess
Connor Walker	7	MBI143	Biology - Intermediate (7th-8th grade)	How Safe Are Our Local Waters on Golf Courses?

## Registered Participants by School

### Cambria Heights High School

Student	Grade	Project #	Project Category	Project Title
Adam Carpinello	10	SBS106	Behavioral & Social Science - Senior (9th-12th grade)	Genre of Music Affecting Sleeping Patterns
Erin Choby	12	SBS107	Behavioral & Social Science - Senior (9th-12th grade)	Generations and Social Justice
Steven Dalby	9	SER109	Engineering / Robotics - Senior (9th-12th grade)	Skyscrapers Standing Tall
Lindsey Drass	11	SBI113	Biology - Senior (9th-12th grade)	Crayfish and Dissolved Oxygen Levels
Ian Eckenrode	9	SER111	Engineering / Robotics - Senior (9th-12th grade)	Sound to Electricity
Jayne Ertter	11	SES111	Earth / Space / Environment - Senior (9th-12th grade)	Copper Corrosion with Water
James Ertter III	9	SES112	Earth / Space / Environment - Senior (9th-12th grade)	How Fast Will a Comet Liquify Due to its Magnitude
Rosalinda Garcia	12	SBS113	Behavioral & Social Science - Senior (9th-12th grade)	Am I Beautiful Mommy?
Emily Hayes	10	SBS118	Behavioral & Social Science - Senior (9th-12th grade)	Did Anyone Call For An Accident? Distracted Driving
Olivia Hite	10	SBS119	Behavioral & Social Science - Senior (9th-12th grade)	Distracted Driving
Alice Hoover	10	SES120	Earth / Space / Environment - Senior (9th-12th grade)	Does it Pay to Paint?
Morgan Hoover	10	SES119	Earth / Space / Environment - Senior (9th-12th grade)	What's Quaking?
Patrick Hoover	12	SES121	Earth / Space / Environment - Senior (9th-12th grade)	Methane Digester for Gas Production
Matthew Illig	11	SES122	Earth / Space / Environment - Senior (9th-12th grade)	Steam is Still Great
Elizabeth Ivory	10	SES123	Earth / Space / Environment - Senior (9th-12th grade)	Abating the Global Food Crisis
Paul Kinney	12	SES125	Earth / Space / Environment - Senior (9th-12th grade)	Absorbing Oil
Abbey Krug	10	SBS122	Behavioral & Social Science - Senior (9th-12th grade)	Did You See the Chicken?
Kylee Marra	10	SBS125	Behavioral & Social Science - Senior (9th-12th grade)	How Fast Can You React?
Karly Maslonik	10	SBS126	Behavioral & Social Science - Senior (9th-12th grade)	Investigating Predisposition in Crimes
Saige Mazenko	10	SBS127	Behavioral & Social Science - Senior (9th-12th grade)	Pandora's Box
Nathan McCombie	9	SPH118	Physics - Senior (9th-12th grade)	Shot or Not
Nikki McCombie	10	SES132	Earth / Space / Environment - Senior (9th-12th grade)	Voltage Output in Solar Panels
Paige McConnell	11	SBI133	Biology - Senior (9th-12th grade)	Daphnia Magna and Oil
Paige McMullen	10	SMH132	Medicine / Health / Microbiology - Senior (9th-12th grade)	Cure it Quick
Ayden Miller	9	SPH121	Physics - Senior (9th-12th grade)	Wait... What's the Weight?
David Pence	11	SER123	Engineering / Robotics - Senior (9th-12th grade)	Best Truss Designs
Nathan Phillips	11	SMH139	Medicine / Health / Microbiology - Senior (9th-12th grade)	Natural Vs Synthetic Antibiotics
Scott Riner	11	SBI148	Biology - Senior (9th-12th grade)	The Effects of Wi-Fi on Daphnia Activity Levels
Kaitlyn Sherwood	10	SBS136	Behavioral & Social Science - Senior (9th-12th grade)	Rock On or Rock Bottom?
Sam Snyder	9	SBI162	Biology - Senior (9th-12th grade)	Grey to Green
Elizabeth Sopata	10	SES148	Earth / Space / Environment - Senior (9th-12th grade)	Filtration for the Nations
Brynn Thomas	10	SBS140	Behavioral & Social Science - Senior (9th-12th grade)	Does Screen Time Affect Sleep?

## Registered Participants by School

### Cambria Heights High School

Student	Grade	Project #	Project Category	Project Title
Alan Venesky	11	SER133	Engineering / Robotics - Senior (9th-12th grade)	Most effective Optical Camouflage

## Registered Participants by School

### Cambria Heights Middle School

Student	Grade	Project #	Project Category	Project Title
Addison Balzano	8	MBI104	Biology - Intermediate (7th-8th grade)	Bad Bettas
Ava Beebe	8	MBS102	Behavioral & Social Science - Intermediate (7th-8th grade)	Will Racing Against Someone Improve Running Ability?
Marissa Berzonsky	8	MBS103	Behavioral & Social Science - Intermediate (7th-8th grade)	Does Listening to Music While Studying Help you Memorize your Work?
Kadence Della Valle	8	MBS108	Behavioral & Social Science - Intermediate (7th-8th grade)	Are Composite or Natural Faces More Appealing to the Human Eye?
Tyler Della Valle	8	MCS108	Consumer Science - Intermediate (7th-8th grade)	Perception of Sugar
William Demi	8	MCH111	Chemistry - Intermediate (7th-8th grade)	Sugar Cube Experiment
Maximus Dillon	8	MBS109	Behavioral & Social Science - Intermediate (7th-8th grade)	Gaming Stereotypes
Haley Drass	8	MMH108	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Essential Oils on Oral Bacteria
Anastasia Foulks	8	MCH122	Chemistry - Intermediate (7th-8th grade)	What are the Effects of Ozone on Rotting Fruits?
Molly Hayes	8	MBS115	Behavioral & Social Science - Intermediate (7th-8th grade)	Phantom Limb Syndrome
Benjamin Hite	8	MER118	Engineering / Robotics - Intermediate (7th-8th grade)	The Sweet Spot
Grace Jacobs	8	MMH112	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	What Music Does Bacteria Like the Best?
Grace Jasper	8	MBI120	Biology - Intermediate (7th-8th grade)	How Does Caffeine Affect Plant Growth?
Morgan Link	8	MBS120	Behavioral & Social Science - Intermediate (7th-8th grade)	How Does Color Affect Memory Performance in 6th, 7th and 8th Grade Students?
Nathan Nihart	8	MBS129	Behavioral & Social Science - Intermediate (7th-8th grade)	Colorful Personality
Kennedy Rogal	8	MCS136	Consumer Science - Intermediate (7th-8th grade)	Does the Shoe Fit?
Sarah Saltsgiver	8	MMH122	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Bacteria Level in Dog Food - Does Price Really Matter?
Braden Thomas	8	MMH128	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Spinbrush vs. Manual Toothbrush - Which will Clean Stained Teeth the Best?
Henry Warner	8	MCH167	Chemistry - Intermediate (7th-8th grade)	What is Best to Drink While Playing Sports?

## Registered Participants by School

### Canon-McMillan High School

Student	Grade	Project #	Project Category	Project Title
Atharv Bhave	10	SBI103	Biology - Senior (9th-12th grade)	DNA Extraction in Fruit

## Registered Participants by School

### Cardinal Wuerl North Catholic High School

Student	Grade	Project #	Project Category	Project Title
Jamie Bouch	9	SES104	Earth / Space / Environment - Senior (9th-12th grade)	Weedkiller Effects on Zebrafish Embryos

## Registered Participants by School

### Carson Middle School

Student	Grade	Project #	Project Category	Project Title
Niyati Cannanbilla	7	MBI111	Biology - Intermediate (7th-8th grade)	Easy and Inexpensive Way to Make Water Potable
Jaehee Cho	7	MBS307	Behavioral & Social Science - Intermediate (7th-8th grade)	Do Video Video Games Affect Sleeping and Learning?
Sarah Degnan	7	MCS300	Consumer Science - Intermediate (7th-8th grade)	Fresh Fruit
Rachel Faulkner	7	MBS112	Behavioral & Social Science - Intermediate (7th-8th grade)	How Males and Females React Differently to Stress
Raj Ginde	7	MMH110	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Magical Toothpaste
Ryan Handron	7	MES105	Earth / Space / Environment - Intermediate (7th-8th grade)	The Power of Potatoes
Oscar Heller	7	MCH304	Chemistry - Intermediate (7th-8th grade)	What Factors Affect Hydrogen Production From Salt Water Hydrolysis
Faith Miller	7	MCS300	Consumer Science - Intermediate (7th-8th grade)	Fresh Fruit
Andrew Minton	7	MBS307	Behavioral & Social Science - Intermediate (7th-8th grade)	Do Video Video Games Affect Sleeping and Learning?
Satvik Palagani	7	MBS131	Behavioral & Social Science - Intermediate (7th-8th grade)	The Human Lie Detector
Eleanor Park	8	MBS133	Behavioral & Social Science - Intermediate (7th-8th grade)	The Impact of Intervention on Dreams and Different Stages of Sleep
Lillian Paul	7	MBI130	Biology - Intermediate (7th-8th grade)	Do Plants Like Coffee Too?
Tejas Prasanna	8	MCS132	Consumer Science - Intermediate (7th-8th grade)	Rainwater Harvesting and Usage
Anthony Puthenpurackal	8	MCH304	Chemistry - Intermediate (7th-8th grade)	What Factors Affect Hydrogen Production From Salt Water Hydrolysis
Nakul Solai	8	MMH124	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Are Call Bell Systems Effective in Getting Timely Medical Help?
Pradyun Solai	7	MBS144	Behavioral & Social Science - Intermediate (7th-8th grade)	Cell Use on Pittsburgh Roadways
Matthew Wei	7	MBS307	Behavioral & Social Science - Intermediate (7th-8th grade)	Do Video Video Games Affect Sleeping and Learning?

## Registered Participants by School

### Central Catholic HS

Student	Grade	Project #	Project Category	Project Title
Christian Farls	9	SES113	Earth / Space / Environment - Senior (9th-12th grade)	Fertilizer Combination Effects on Algae
Vincent Kaschauer	9	SBS121	Behavioral & Social Science - Senior (9th-12th grade)	The Center Stage Effect on Decision Making
Will Koloc	9	SMH128	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effect of Cacao on Staphylococcus epidermidis and E. coli Survivorship
John Pawlowicz	9	SES139	Earth / Space / Environment - Senior (9th-12th grade)	Mitigating Phosphorus in Water Runoff
Liam Tinker	9	SMH151	Medicine / Health / Microbiology - Senior (9th-12th grade)	Fipronil Effects on Stem Cell Behavior



## Registered Participants by School

### Chartiers Valley High School

Student	Grade	Project #	Project Category	Project Title
Megan Debski	11	SPH105	Physics - Senior (9th-12th grade)	Harnessing the power of the sun
Bridget Schneider	9	SES143	Earth / Space / Environment - Senior (9th-12th grade)	Solar Eclipse: Temperature change during totality

## Registered Participants by School

### Chartiers Valley Middle School

Student	Grade	Project #	Project Category	Project Title
Rachel Behanna	8	MCH300	Chemistry - Intermediate (7th-8th grade)	Gas vs. Liquid
Abigail Betts	8	MCH300	Chemistry - Intermediate (7th-8th grade)	Gas vs. Liquid
Madeline Cioccio	6	JBC302	Behavioral & Consumer Sciences - Junior (6th Grade)	American vs European Detergents
Luke Hinds	6	JBI113	Biological Sciences - Junior (6th Grade)	Do Video Games Affect Blood Pressure?
Gwyneth Horzempa	6	JBI303	Biological Sciences - Junior (6th Grade)	Ready, Set, Grow
Milla Konakchieva	6	JBC302	Behavioral & Consumer Sciences - Junior (6th Grade)	American vs European Detergents
Maxim Milligan	8	MES117	Earth / Space / Environment - Intermediate (7th-8th grade)	Parachutte Construction
Sarah Palma	6	JBI303	Biological Sciences - Junior (6th Grade)	Ready, Set, Grow
Eva Tokar	7	MPH146	Physics - Intermediate (7th-8th grade)	Whoa H2O!
Anna Wilcox	7	MBS149	Behavioral & Social Science - Intermediate (7th-8th grade)	Deal 'em Up
Mackenzie Zimmerman	6	JBI303	Biological Sciences - Junior (6th Grade)	Ready, Set, Grow

## Registered Participants by School

### City Charter High School

Student	Grade	Project #	Project Category	Project Title
Carmella Brown	12	SMH106	Medicine / Health / Microbiology - Senior (9th-12th grade)	Sugar Content in Smoothies
Krysta Eberlein	12	SMH115	Medicine / Health / Microbiology - Senior (9th-12th grade)	The effect of hand soap on Staphylococcus Aureus
Cody Good	12	SES116	Earth / Space / Environment - Senior (9th-12th grade)	The effect of salt on freezing point of water and seed germination
William Haden	12	SBI122	Biology - Senior (9th-12th grade)	An analysis of Citrus Fruit DNA
Sabrina Hicks	12	SMH121	Medicine / Health / Microbiology - Senior (9th-12th grade)	Measuring the content of fat in pepperoni at different temperatures
Jaz'zee Jones	12	SCH118	Chemistry - Senior (9th-12th grade)	The effects of epsom salts and water hardness on bath bombs
Michelle Rauber	12	SMH142	Medicine / Health / Microbiology - Senior (9th-12th grade)	Which acne wash can zap that zit away?
Ja'Raya Sloan	12	SBI160	Biology - Senior (9th-12th grade)	Travelling Liquids
Taymar Spencer	12	SMH149	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effect of Handwash on the Amount of Acne
Taylor Watkins	12	SES153	Earth / Space / Environment - Senior (9th-12th grade)	The Effect of Aspirin on Plant Growth

## Registered Participants by School

### Community Day School

Student	Grade	Project #	Project Category	Project Title
Evelyn Aizenstein	6	JCH100	Chemistry - Junior (6th Grade)	Food Grade Chemical Sperification
Nealey Barak	7	MES300	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of Color on Solar Water Heating
Shuli Dernis	8	MCM100	Computer Science / Math - Intermediate (7th-8th grade)	Capitalization Corrector
Talia Gelman	6	JPE105	Physical Sciences & Engineering - Junior (6th Grade)	Determining the Most Effective Adhesives on Plastic and Wood
Nadav Gilboa	8	MCH303	Chemistry - Intermediate (7th-8th grade)	Testing Flammability
Tali Harris-Gershon	6	JB112	Biological Sciences - Junior (6th Grade)	The Effect of Caffeine on Plant Growth
Noah Indianer	7	MES108	Earth / Space / Environment - Intermediate (7th-8th grade)	Energy Production from a Wind Turbine using Solar Assist
Erin Klein	8	MBI122	Biology - Intermediate (7th-8th grade)	The Effect of Poisons on Hydra
Owen Lictenstein	7	MCH139	Chemistry - Intermediate (7th-8th grade)	Electrolyte Concentration in Sports Drinks
Davis Morgenstern	7	MES118	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of Radiofrequency Radiation on Plants
Ellia Neiss	6	JPE115	Physical Sciences & Engineering - Junior (6th Grade)	Best Insulator for Balls at Different Temp.
Noa Pinkston	8	MBI305	Biology - Intermediate (7th-8th grade)	Chemicals on Daphnia Heart Rate
Jacob Schneiderman	8	MCH303	Chemistry - Intermediate (7th-8th grade)	Testing Flammability
Jessica Simon	7	MES300	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of Color on Solar Water Heating
Ben Tarr	8	MER142	Engineering / Robotics - Intermediate (7th-8th grade)	Automating a Robotic Tank
Michael Ulis	7	MCH164	Chemistry - Intermediate (7th-8th grade)	The Effect of pH on Chicken Liver Enzymes
Akiva Weinkle	6	JB129	Biological Sciences - Junior (6th Grade)	The Effect of concussions on reaction time
Madison Zunder	8	MBI305	Biology - Intermediate (7th-8th grade)	Chemicals on Daphnia Heart Rate

## Registered Participants by School

### Dorseyville Middle School

Student	Grade	Project #	Project Category	Project Title
Aiden Dorneich	7	MER108	Engineering / Robotics - Intermediate (7th-8th grade)	Pneumatic Muscles: Airflow and Pressure
Justine Eng	8	MCS112	Consumer Science - Intermediate (7th-8th grade)	Choice of Color
Mona Gerges	8	MBI116	Biology - Intermediate (7th-8th grade)	What is the Effect of Acute Lead Poisoning on the Immune System?
Lucas Gravina	6	JPE106	Physical Sciences & Engineering - Junior (6th Grade)	Three Person Chess Board
Janise Kim	8	MER121	Engineering / Robotics - Intermediate (7th-8th grade)	Using Rotational Energy to Power Electric Cars' Batteries
Zoe Lakkis	8	MCM104	Computer Science / Math - Intermediate (7th-8th grade)	Global Poverty: Causes or Consequences?
Jonathan Li	7	MPH127	Physics - Intermediate (7th-8th grade)	How Temperatures affect the Volume of Liquids
Nathaniel Mueller	8	MCM105	Computer Science / Math - Intermediate (7th-8th grade)	The Future of the Economy
Kevin Quinn	7	MBI134	Biology - Intermediate (7th-8th grade)	The Dream Garden
Arvind Seshan	7	MCM108	Computer Science / Math - Intermediate (7th-8th grade)	Aiding Search and Rescue after Natural Disasters
Prajval Sreenivas	7	MBI138	Biology - Intermediate (7th-8th grade)	Liquids vs. Plant Growth
Shrivardhan Thada	8	MCS141	Consumer Science - Intermediate (7th-8th grade)	Insulation of Shoes
Adhitya Thirumala	6	JPE128	Physical Sciences & Engineering - Junior (6th Grade)	Do-It-Yourself Raspberry Pi Motion Camera
Christina Tran	8	MER144	Engineering / Robotics - Intermediate (7th-8th grade)	The R.S. Sensor: is it Better than the Average Smoke Alarm?
Theodor Urban	8	MCM110	Computer Science / Math - Intermediate (7th-8th grade)	Designing a Test of Random Process Estimation
Siddharth Yende	8	MER148	Engineering / Robotics - Intermediate (7th-8th grade)	Unsolderable: Finding the Best Type of Solder

## Registered Participants by School

### East Allegheny High School

Student	Grade	Project #	Project Category	Project Title
Stevan Bulatovic	10	SER105	Engineering / Robotics - Senior (9th-12th grade)	Wood Stove Temperature Regulator

## Registered Participants by School

### East Catholic School

Student	Grade	Project #	Project Category	Project Title
Matthew Best	7	MBI108	Biology - Intermediate (7th-8th grade)	The Gas Fruits Pass
William Courtright	7	MBS107	Behavioral & Social Science - Intermediate (7th-8th grade)	Kids vs. Adults: Who's More wired
Benjamin Gaunt	7	MBI114	Biology - Intermediate (7th-8th grade)	The 'V': An Integral Part of a Goose's Life
Tia Kaschauer	6	JBC108	Behavioral & Consumer Sciences - Junior (6th Grade)	Selective Attention: What You're Missing
Myka Lichius	7	MMH115	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Yeast In Different Enviornments
Jacob Murray	7	MCH150	Chemistry - Intermediate (7th-8th grade)	Does Mint Actually Cool Things Down?
Tomas Nelson	8	MBI127	Biology - Intermediate (7th-8th grade)	GMO:Better Than Your Average Seed?
William Nelson	6	JBI122	Biological Sciences - Junior (6th Grade)	Potting Soil vs. Planting Soil
Olivia Nieser	8	MCM106	Computer Science / Math - Intermediate (7th-8th grade)	Making Geometric Patterns With a Rubik's Cube
Sofia Porco	8	MBS136	Behavioral & Social Science - Intermediate (7th-8th grade)	Are Sibling Stereotypes True?
Carly Reitter	8	MBS137	Behavioral & Social Science - Intermediate (7th-8th grade)	Memory Mnemonics
Rosalie Van Deusen	8	MMH129	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	The 5 Second Rule: True or False?

## Registered Participants by School

### Falk Laboratory School

Student	Grade	Project #	Project Category	Project Title
Evan Bagley	6	JBI102	Biological Sciences - Junior (6th Grade)	Which Kills Bacteria Better?
Jacob Brodkey	6	JBC102	Behavioral & Consumer Sciences - Junior (6th Grade)	Online Testing - Time & Performance
Evan Dine	7	MBS300	Behavioral & Social Science - Intermediate (7th-8th grade)	Left or Right?
Julia Ferline	7	MES306	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of water pH on Soybeans
Norma Fruzynski	6	JBI300	Biological Sciences - Junior (6th Grade)	Cat sense of smell and preferences
Maria Kamarck	6	JBI300	Biological Sciences - Junior (6th Grade)	Cat sense of smell and preferences
Scarlett Kaufman	7	MES306	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of water pH on Soybeans
Malcolm Kurtz	7	MES113	Earth / Space / Environment - Intermediate (7th-8th grade)	Different H2O impact on P. Vulgaris
Aavin Mangalmurti	6	JPE301	Physical Sciences & Engineering - Junior (6th Grade)	Aerodynamics of a ping-pong ball
Olivia McQuiston	6	JBI118	Biological Sciences - Junior (6th Grade)	Effect of pH on Bean Plant Growth
Cora Myers	6	JBI302	Biological Sciences - Junior (6th Grade)	Organic vs. Non-organic fruit
Julia Sayette	6	JBI302	Biological Sciences - Junior (6th Grade)	Organic vs. Non-organic fruit
Jayanthi Simhan	7	MES125	Earth / Space / Environment - Intermediate (7th-8th grade)	Nine Mile Run Watershed Quality
Uma Simhan	7	MES306	Earth / Space / Environment - Intermediate (7th-8th grade)	Effect of water pH on Soybeans
Étienne Strandberg-Houzé	7	MMH126	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Effects of UV radiation on SODIS
SiMing Tang	7	MBS300	Behavioral & Social Science - Intermediate (7th-8th grade)	Left or Right?
Finn Woods	6	JPE301	Physical Sciences & Engineering - Junior (6th Grade)	Aerodynamics of a ping-pong ball
Zoe Zuckerbraun	8	MCH175	Chemistry - Intermediate (7th-8th grade)	Nitrate and Nitrates in Bacon



## Registered Participants by School

### Fort Couch Middle School

Student	Grade	Project #	Project Category	Project Title
Vanessa Benonis	7	MBS305	Behavioral & Social Science - Intermediate (7th-8th grade)	Does dogs' breed affect their memory
Ileana Berkoski	8	MBS303	Behavioral & Social Science - Intermediate (7th-8th grade)	Education: Digital or Paper
Nitin Chandran	7	MPH108	Physics - Intermediate (7th-8th grade)	How does the weight of a coaster affect how fast a roller coaster goes?
Scott Cheung	8	MER304	Engineering / Robotics - Intermediate (7th-8th grade)	Hydro-Wheels
Shrishti Chhajlani	8	MBI302	Biology - Intermediate (7th-8th grade)	Ultraviolet Radiation's Effect on Yeast
Aly Childs	8	MBS303	Behavioral & Social Science - Intermediate (7th-8th grade)	Education: Digital or Paper
Sarah Christensen	8	MBS302	Behavioral & Social Science - Intermediate (7th-8th grade)	Color Memorization
Carter Chui	7	MPH301	Physics - Intermediate (7th-8th grade)	Diamagnetic Demons
Varun Damarla	8	MPH308	Physics - Intermediate (7th-8th grade)	The Best Airplane Design
Jack Dietrick	7	MBI300	Biology - Intermediate (7th-8th grade)	Are Fingerprints Inherited
Maggie Dowds	7	MBS301	Behavioral & Social Science - Intermediate (7th-8th grade)	Time Perception
Mackenzie Dupre	8	MCH309	Chemistry - Intermediate (7th-8th grade)	Which soda stains teeth the most?
Matthew Earley	7	MCH308	Chemistry - Intermediate (7th-8th grade)	Piezo Cake
Ella Elkoni	7	MCH302	Chemistry - Intermediate (7th-8th grade)	Salinity and Sound
Marcus Fennell	7	MPH302	Physics - Intermediate (7th-8th grade)	Trajectory Change of Angle on Potato Gun
Shreya Golakiya	8	MCH305	Chemistry - Intermediate (7th-8th grade)	Effects of Elements on Crystal Properties
George Gold	7	MCH310	Chemistry - Intermediate (7th-8th grade)	What burns fire the best?
Valeria Gonzalez	8	MBS302	Behavioral & Social Science - Intermediate (7th-8th grade)	Color Memorization
Jules Gray	8	MES302	Earth / Space / Environment - Intermediate (7th-8th grade)	The Water Pollution Project
Gordon Groniger	7	MPH302	Physics - Intermediate (7th-8th grade)	Trajectory Change of Angle on Potato Gun
Keelyn Hamm	8	MBS303	Behavioral & Social Science - Intermediate (7th-8th grade)	Education: Digital or Paper
Zachary Hardy	7	MCH310	Chemistry - Intermediate (7th-8th grade)	What burns fire the best?
Anna Hess	8	MBS302	Behavioral & Social Science - Intermediate (7th-8th grade)	Color Memorization
Shivani Jajoo	8	MCH305	Chemistry - Intermediate (7th-8th grade)	Effects of Elements on Crystal Properties
Himani Karisa	8	MES302	Earth / Space / Environment - Intermediate (7th-8th grade)	The Water Pollution Project
James Kent	7	MBS306	Behavioral & Social Science - Intermediate (7th-8th grade)	Meditation and tests
Peer Khan	7	MPH301	Physics - Intermediate (7th-8th grade)	Diamagnetic Demons
Sanjana Khedikar	8	MES302	Earth / Space / Environment - Intermediate (7th-8th grade)	The Water Pollution Project
Eunchae Kim	7	MCH306	Chemistry - Intermediate (7th-8th grade)	Does Tea/Coffee/Pop Stain your Teeth?
Sarina Krishnaswamy	8	MBI302	Biology - Intermediate (7th-8th grade)	Ultraviolet Radiation's Effect on Yeast
Ty Lagoni	7	MPH301	Physics - Intermediate (7th-8th grade)	Diamagnetic Demons

## Registered Participants by School

### Fort Couch Middle School

Student	Grade	Project #	Project Category	Project Title
Mahesh Lakshminarayanan	7	MPH126	Physics - Intermediate (7th-8th grade)	Bottle Rockets
Aubrey Lang	8	MCH305	Chemistry - Intermediate (7th-8th grade)	Effects of Elements on Crystal Properties
Alexander Lesh	7	MES303	Earth / Space / Environment - Intermediate (7th-8th grade)	What affect does North Atlantic ACE have on temperatures in Pittsburgh in December?
Mia Mackovich	8	MBS150	Behavioral & Social Science - Intermediate (7th-8th grade)	Space Psychology
Phillip Markovitz	7	MCH308	Chemistry - Intermediate (7th-8th grade)	Piezo Cake
Luka Mistic	8	MPH133	Physics - Intermediate (7th-8th grade)	How Do Materials in Swimsuits Affect Performance
Priyanka Palayekar	7	MBI301	Biology - Intermediate (7th-8th grade)	Does Watching Different Genres of Movies Affect Blood Pressure?
Eesha Pande	7	MBS301	Behavioral & Social Science - Intermediate (7th-8th grade)	Time Perception
Dev Patel	8	MER302	Engineering / Robotics - Intermediate (7th-8th grade)	Wind Turbine Models and Production of Electricity
Erin Payne	8	MBI302	Biology - Intermediate (7th-8th grade)	Ultraviolet Radiation's Effect on Yeast
Victoria Pete	8	MBI131	Biology - Intermediate (7th-8th grade)	How does pH affect the growth of wheat grass
Emma Pribanic	8	MCH307	Chemistry - Intermediate (7th-8th grade)	Filtering Lead-Creating Safe Water
Srinidhi Rajaganapathy	7	MCH306	Chemistry - Intermediate (7th-8th grade)	Does Tea/Coffee/Pop Stain your Teeth?
Rosemary Ramirez	7	MBI301	Biology - Intermediate (7th-8th grade)	Does Watching Different Genres of Movies Affect Blood Pressure?
Maanasa Reddy	7	MCH302	Chemistry - Intermediate (7th-8th grade)	Salinity and Sound
Shana Reddy	8	MES124	Earth / Space / Environment - Intermediate (7th-8th grade)	Combating Carbonic Acid: Preventing Oceanic Calcification
Evan Sarkett	7	MCH308	Chemistry - Intermediate (7th-8th grade)	Piezo Cake
Victoria Semenov	8	MCH309	Chemistry - Intermediate (7th-8th grade)	Which soda stains teeth the most?
Vidhur Senthil	8	MER137	Engineering / Robotics - Intermediate (7th-8th grade)	Solar Drone
Ritvik Shah	8	MER302	Engineering / Robotics - Intermediate (7th-8th grade)	Wind Turbine Models and Production of Electricity
Sujay Shah	8	MER302	Engineering / Robotics - Intermediate (7th-8th grade)	Wind Turbine Models and Production of Electricity
Nitish Sharma	8	MPH308	Physics - Intermediate (7th-8th grade)	The Best Airplane Design
Ryder Shaver	7	MBS305	Behavioral & Social Science - Intermediate (7th-8th grade)	Does dogs' breed affect their memory
Jillian Shaw	8	MCH307	Chemistry - Intermediate (7th-8th grade)	Filtering Lead-Creating Safe Water
Ipsita Singh	7	MBI301	Biology - Intermediate (7th-8th grade)	Does Watching Different Genres of Movies Affect Blood Pressure?
Aishwarya Sinha	8	MER304	Engineering / Robotics - Intermediate (7th-8th grade)	Hydro-Wheels
Michael Stalder	7	MES303	Earth / Space / Environment - Intermediate (7th-8th grade)	What affect does North Atlantic ACE have on temperatures in Pittsburgh in December?
Dimitri Suher	7	MBI300	Biology - Intermediate (7th-8th grade)	Are Fingerprints Inherited

## Registered Participants by School

### Fort Couch Middle School

Student	Grade	Project #	Project Category	Project Title
Aditri Thakur	8	MER304	Engineering / Robotics - Intermediate (7th-8th grade)	Hydro-Wheels
Alexander Todd	7	MBS306	Behavioral & Social Science - Intermediate (7th-8th grade)	Meditation and tests
Alex Vanhoorelbeke	8	MER305	Engineering / Robotics - Intermediate (7th-8th grade)	Project Rocketman
Jackson Vanhoorelbeke	8	MER305	Engineering / Robotics - Intermediate (7th-8th grade)	Project Rocketman
Daniel Wang	8	MBI144	Biology - Intermediate (7th-8th grade)	How Different Sound Frequencies Affect Plants
Izzy Yoos	8	MCH309	Chemistry - Intermediate (7th-8th grade)	Which soda stains teeth the most?
Landon York	7	MCH310	Chemistry - Intermediate (7th-8th grade)	What burns fire the best?
Abigail Zediker	7	MBS305	Behavioral & Social Science - Intermediate (7th-8th grade)	Does dogs' breed affect their memory

## Registered Participants by School

### Fox Chapel Area High School

Student	Grade	Project #	Project Category	Project Title
Suparna Agrawal	9	SES100	Earth / Space / Environment - Senior (9th-12th grade)	Plant Growth vs. Pollution
Vishi Agrawal	11	SCH101	Chemistry - Senior (9th-12th grade)	Optimization of Automated Fiber Collection Process
Hanna Chen	10	SES302a	Earth / Space / Environment - Senior (9th-12th grade)	Color and Climate
Jasmine Eng	10	SBS112	Behavioral & Social Science - Senior (9th-12th grade)	Are there quantifiable characteristics of popular songs?
Serena Fisher	10	SBI116	Biology - Senior (9th-12th grade)	Replacement for FBS in Cell Culture Median
Amulya Garimella	9	SBI118	Biology - Senior (9th-12th grade)	Genetic Analysis of Neurodegeneration
Rajeev Godse	10	SBS115	Behavioral & Social Science - Senior (9th-12th grade)	The Prisoner's Dilemma: Testing Human Ability to Cooperate
Sanjana Harish	11	SES118	Earth / Space / Environment - Senior (9th-12th grade)	Increasing the Efficiency of a Solar Panel with a Thermoelectric Generator
Zachary Lakkis	11	SMH129	Medicine / Health / Microbiology - Senior (9th-12th grade)	Glycolysis Linked Regulation of Cytokine Production in T Lymphocytes
Ji-Yool Moon	11	SER120	Engineering / Robotics - Senior (9th-12th grade)	Efficient Magnetic Resonance Imaging of the Brain
Zeynep Ozkaya	10	SES137	Earth / Space / Environment - Senior (9th-12th grade)	Detrimental Detergents
Vinisha Sant	9	SMH145	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effect of Antibiotics on Catalase Activity in Yeast
Anzu Sekikawa	10	SCH133	Chemistry - Senior (9th-12th grade)	Those Harmful Rays
Sanjay Seshan	9	SER127	Engineering / Robotics - Senior (9th-12th grade)	Improving Autonomous Vehicle Performance Using Infrastructure-Based Sensing
Olivia Tang	10	SES302b	Earth / Space / Environment - Senior (9th-12th grade)	Color and Climate
Nishi Thawani	9	SCH135	Chemistry - Senior (9th-12th grade)	Electrolysis of Water
Ameya Velankar	10	SBS142	Behavioral & Social Science - Senior (9th-12th grade)	Library Product Placement
Gina Wang	11	SBI166	Biology - Senior (9th-12th grade)	The Effect of Different Types of Light on Cells

## Registered Participants by School

### Franklin Regional MS

Student	Grade	Project #	Project Category	Project Title
Andrew Manzella	6	JPE302	Physical Sciences & Engineering - Junior (6th Grade)	Maglev Train
Luke Purcell	6	JPE302	Physical Sciences & Engineering - Junior (6th Grade)	Maglev Train
Nina Ross	7	MES305	Earth / Space / Environment - Intermediate (7th-8th grade)	Conducting Electricity Through Household Objects
Ella Venters	7	MES305	Earth / Space / Environment - Intermediate (7th-8th grade)	Conducting Electricity Through Household Objects
Grace Wang	7	MES128	Earth / Space / Environment - Intermediate (7th-8th grade)	Global Warming and It's Effects

## Registered Participants by School

### Freeport Area High School

Student	Grade	Project #	Project Category	Project Title
Hanna Brennehan	9	SMH105	Medicine / Health / Microbiology - Senior (9th-12th grade)	Antibiotic Properties of Herbs
Liam Dress	10	SMH114	Medicine / Health / Microbiology - Senior (9th-12th grade)	Potential Triclosan Resistant E. coli
Anastazia Herbst	10	SPH110	Physics - Senior (9th-12th grade)	Typ UV & Temp Aff Speed Photochromatic Lens Changing
Maggie Hollobaugh	9	SMH124	Medicine / Health / Microbiology - Senior (9th-12th grade)	Do Accent Nails Affect the Accuracy of Pulse Oximeters?
Rebecca Hollobaugh	11	SMH123	Medicine / Health / Microbiology - Senior (9th-12th grade)	Which type of examination glove causes the least amount of bacterial transference?
Emily Huff	11	SMH125	Medicine / Health / Microbiology - Senior (9th-12th grade)	Will sutures infused with nano silver particles inhibit bacterial proliferation?
Lucas Jones	9	SPH112	Physics - Senior (9th-12th grade)	Does the Length of Fletching on a Crossbow Bolt Effect the Depth of Penetration?
David Kinniburgh	11	SES126	Earth / Space / Environment - Senior (9th-12th grade)	Does Saltwater or Freshwater Algae Produce more Fuel in Varying Conditions?
Alex Kladny	11	SPH115	Physics - Senior (9th-12th grade)	What effect does the shape of tubercles have on turbine efficiency?
Alex Legin	9	SPH116	Physics - Senior (9th-12th grade)	What LED light produces the best current from a solar panel?
Anuj Lele	9	SBI130	Biology - Senior (9th-12th grade)	Which Foods Provide the Maximum Sucrose to Glucose Conversion in a Given Time Using the Invertase Enzyme?
Eli Lindsay	10	SES130	Earth / Space / Environment - Senior (9th-12th grade)	An Inexpensive Passive for Bioremediating Liquid Manure
Michaela Mattivi	12	SER118	Engineering / Robotics - Senior (9th-12th grade)	Which species of mushroom produces the strongest building material?
John McCoy	10	SPH119	Physics - Senior (9th-12th grade)	Hull Design and Drag in Boats
Sydney Pastorek	11	SMH137	Medicine / Health / Microbiology - Senior (9th-12th grade)	Does GMO Corn Syrup Inhibit Bacteria?
Madison Ravotti	10	SMH143	Medicine / Health / Microbiology - Senior (9th-12th grade)	Can Silver Nanoparticles Inhibit Coagulation in Blood?
Lurena Stewart	11	SMH150	Medicine / Health / Microbiology - Senior (9th-12th grade)	Does activated charcoal infused with nanosilver particles inhibit epidermal bacterial proliferation better than cotton cast padding infused with nanosilver particles?
John Zurisko	11	SCM127	Computer Science / Math - Senior (9th-12th grade)	Applying Linear Algebra

## Registered Participants by School

### Freeport Area Middle School

Student	Grade	Project #	Project Category	Project Title
Ashley Arner	6	JBI101	Biological Sciences - Junior (6th Grade)	Effect of Preservatives on the Growth of Bacteria
Hunter Bergad	7	MMH103	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Does Artificial Sugar Affect E. coli Proliferation?
Anand Bhat	7	MMH104	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Which Dosing Device is Accurate?
Anita Bhat	7	MCS104	Consumer Science - Intermediate (7th-8th grade)	Which lotion potion prevents the most water motion?
Colton Brenneman	7	MBI109	Biology - Intermediate (7th-8th grade)	Affect of Temp. on Swim Speed
Isabelle Emeloff	6	JBI107	Biological Sciences - Junior (6th Grade)	Which Acne Product is Most Cost Effective in Inhibiting S. epidermitis?
Olivia Giancola	7	MBI304	Biology - Intermediate (7th-8th grade)	Could the Theory in "The Age of Adaline" ever be Possible?
Audrey Gregori	6	JBI110	Biological Sciences - Junior (6th Grade)	Do Fingerprints Follow the Incomplete Dominance Pattern of Inheritance?
Hadley Hellgren	7	MES106	Earth / Space / Environment - Intermediate (7th-8th grade)	Env imp of pwr line herbicides
Jesse Hilko	7	MPH118	Physics - Intermediate (7th-8th grade)	Does the temperature at which a magnet is made affect its strength?
Robby Kladny	8	MPH124	Physics - Intermediate (7th-8th grade)	How does the tread on car tires affect the traction with a wet road?
Anne Lindsay	6	JPE111	Physical Sciences & Engineering - Junior (6th Grade)	Affect of Wax on Mountain Skiing
Ethan Rapp	7	MPH136	Physics - Intermediate (7th-8th grade)	Which shape of a Pinewood Derby Car is Fastest?
Grace Seita	7	MBS142	Behavioral & Social Science - Intermediate (7th-8th grade)	Do you see what eye see?
Abigail Spinner	7	MCS139	Consumer Science - Intermediate (7th-8th grade)	How Well do Water Purifiers Work?
Elise Whitlinger	7	MBI304	Biology - Intermediate (7th-8th grade)	Could the Theory in "The Age of Adaline" ever be Possible?

## Registered Participants by School

### Gateway Middle School

Student	Grade	Project #	Project Category	Project Title
Bryona Jackson	8	MER119	Engineering / Robotics - Intermediate (7th-8th grade)	Forces as Renewable Energy Sources
Eddie Lin	8	MER122	Engineering / Robotics - Intermediate (7th-8th grade)	Homemade Speaker
Peri Muftuoglu	8	MER128	Engineering / Robotics - Intermediate (7th-8th grade)	Solar Energy: A Panel Closer to a Bright Future
Nurfadil Rafiuddin	8	MER133	Engineering / Robotics - Intermediate (7th-8th grade)	Gesture Recognition to Control Digital IO
Madelyn Rhea	8	MPH307	Physics - Intermediate (7th-8th grade)	Capability of Solar Mirrors
Tyler Valentich	8	MER146	Engineering / Robotics - Intermediate (7th-8th grade)	A Bright Idea: The energy usage of three popular light bulb types
Serena Xia	8	MPH307	Physics - Intermediate (7th-8th grade)	Capability of Solar Mirrors



## Registered Participants by School

### Greensburg Central Catholic

Student	Grade	Project #	Project Category	Project Title
Corinn Brewer	8	MER104	Engineering / Robotics - Intermediate (7th-8th grade)	Testing Novel Approaches to Bridge Design Using a 3D Printer
Miranda Donnelly	7	MMH107	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	5 Second Rule: True or False?
Olivia Kanalis	7	MCH131	Chemistry - Intermediate (7th-8th grade)	What Color Candle Burns the Fastest?
Lily Machusko	7	MBS121	Behavioral & Social Science - Intermediate (7th-8th grade)	In a Blink of an Eye
Daniel John-Michael Melucci	12	SMH133	Medicine / Health / Microbiology - Senior (9th-12th grade)	I Didn't Order This!
Ryan Reitler	8	MCS135	Consumer Science - Intermediate (7th-8th grade)	Hot or Cold: Which Tumbler is Best?
Annaliese See	7	MPH140	Physics - Intermediate (7th-8th grade)	Vaulting Ions
Lyndsey Szekely	8	MMH127	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Bactericidal
John Tropeano	7	MER145	Engineering / Robotics - Intermediate (7th-8th grade)	Odometry and Dynamic Collision Avoidance
Meredith Tropeano	10	SER131	Engineering / Robotics - Senior (9th-12th grade)	Computerized Trainer to Improve Reaction Time in Post Concussion Athletes
Ashley Winnor	7	MPH149	Physics - Intermediate (7th-8th grade)	How Does Temperature Affect the Speed of Sound?

## Registered Participants by School

### Hampton High School

Student	Grade	Project #	Project Category	Project Title
Tejas Badgujar	11	SCM100	Computer Science / Math - Senior (9th-12th grade)	Random Forests for Chemical Shifts
Emily Mullen	10	SBI139	Biology - Senior (9th-12th grade)	Scaffold Material Influence on Stem Cell Behavior

## Registered Participants by School

### Hampton Middle School

Student	Grade	Project #	Project Category	Project Title
Saisha Badgujar	8	MBS101	Behavioral & Social Science - Intermediate (7th-8th grade)	Effect of Music on Plant Growth
Marlee Rudy	7	MPH139	Physics - Intermediate (7th-8th grade)	Levitating Magnets

## Registered Participants by School

### Harrison Middle School

Student	Grade	Project #	Project Category	Project Title
Timothy Book	7	MBS104	Behavioral & Social Science - Intermediate (7th-8th grade)	The Dollars and Cents of Perception
Payton Fleszar	8	MCS114	Consumer Science - Intermediate (7th-8th grade)	Are Childproof Containers Really Childproof?
Kevin Hutchinson	6	JBC106	Behavioral & Consumer Sciences - Junior (6th Grade)	Do Fidget Spinners Really Make Attention Spans Bigger?
Neveen Khalil	8	MBS118	Behavioral & Social Science - Intermediate (7th-8th grade)	Perception of Criminal Characteristics Across Diverse Nationalities
Nicole Lewis	8	MBI123	Biology - Intermediate (7th-8th grade)	How Different Fertilizers Affect Plants with and without Sunlight
Noah Lewis	8	MBI124	Biology - Intermediate (7th-8th grade)	How Different Genres of Music Affect the Growth of Pothos
Jack O'Neill	8	MBI128	Biology - Intermediate (7th-8th grade)	"Pea" J.A.S.
Owen Petrucci	8	MER129	Engineering / Robotics - Intermediate (7th-8th grade)	Hurricane Houses
Abigail Rodgers	8	MBS140	Behavioral & Social Science - Intermediate (7th-8th grade)	How Does Music Affect the Time Taken to Solve a Rubik's Cube?
Sierra Schmidt	8	MBI136	Biology - Intermediate (7th-8th grade)	Thirsty Plants
Dylan Weber	7	MBI145	Biology - Intermediate (7th-8th grade)	Effects of Various Light Sources on Plant Growth
Ava Weidensall	7	MES129	Earth / Space / Environment - Intermediate (7th-8th grade)	Creating an Eco-Home

## Registered Participants by School

### Holy Cross Academy

Student	Grade	Project #	Project Category	Project Title
David Thomas	6	JBC119	Behavioral & Consumer Sciences - Junior (6th Grade)	What Antacid is the Most Efficient?

## Registered Participants by School

### Hopewell Memorial Jr. High

Student	Grade	Project #	Project Category	Project Title
Mary Adams	7	MMH100	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Got Gluten?
Lucas Arington	7	MPH100	Physics - Intermediate (7th-8th grade)	Aluminum versus Composite and Wood bats
Gregory Barlion Jr.	7	MPH102	Physics - Intermediate (7th-8th grade)	Different Heights of Football Blocks
Kylie P. Brinza	8	MCS106	Consumer Science - Intermediate (7th-8th grade)	Whitening Toothpaste
Kristine Dameron	7	MCS107	Consumer Science - Intermediate (7th-8th grade)	The Battle of the Tumblers
Megan Diers	8	MCS109	Consumer Science - Intermediate (7th-8th grade)	Pumpin' Iron
Ashlynn Ealy	8	MCH118	Chemistry - Intermediate (7th-8th grade)	Contact Solution vs. Slime
Jaiden Kosanovich	8	MPH125	Physics - Intermediate (7th-8th grade)	Can U.V light change color?
Isabella Leseiko	7	MCH137	Chemistry - Intermediate (7th-8th grade)	Testing the pH of Bar Soaps
Ava Miller	7	MER126	Engineering / Robotics - Intermediate (7th-8th grade)	Soccer Golaie jersey design
Gillian Morse	7	MPH134	Physics - Intermediate (7th-8th grade)	Fabric vs. Fire
Magdalena Shadel	7	MPH141	Physics - Intermediate (7th-8th grade)	Strings Vs. Tuning Stability
Tamia Shakespeare	7	MCS138	Consumer Science - Intermediate (7th-8th grade)	What Diaper Brand Is The Most Absorbent?

## Registered Participants by School

### Indiana Area High School

Student	Grade	Project #	Project Category	Project Title
Matthew Berzonsky	11	SER102	Engineering / Robotics - Senior (9th-12th grade)	Using Excess Runoff for Green Roofs
Nathan Birch	10	SMH304a	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effects of Dietary Fat or Sucrose on Body Weight and Glucose Homeostasis and Interactions with an Antihistamine
Kharis Bohn	9	SBS105	Behavioral & Social Science - Senior (9th-12th grade)	The Effect of Foods on Hissing Cockroach Maze Completion Time
Joseph Bujdos	11	SES107	Earth / Space / Environment - Senior (9th-12th grade)	Gauging and Estimating Health of The Allegheny Arboretum
Philip Colen	11	SBI109	Biology - Senior (9th-12th grade)	The Effect Of Caffeine On Cockroaches
Amna Kasi	9	SBI124	Biology - Senior (9th-12th grade)	The effects of RNA interference knockout on planarian regeneration
Chloe Kocinski	9	SBI127	Biology - Senior (9th-12th grade)	The Effects of Chemical Lightening on Human Hair
India Krug	10	SBS123	Behavioral & Social Science - Senior (9th-12th grade)	The Politics Behind Violence
Amelia Kuzneski	10	SER114	Engineering / Robotics - Senior (9th-12th grade)	Electromagnetic Induction Powered Mobile Charger
Talia Mastalski	11	SER117	Engineering / Robotics - Senior (9th-12th grade)	A Cover For Darkness
Kathryn Metzger	11	SES134	Earth / Space / Environment - Senior (9th-12th grade)	Vermiculture and Cafeteria Waste
Audra Moore	9	SCH127	Chemistry - Senior (9th-12th grade)	The Effects of Colored Light on Chemically Treated Flame Retardant Fabric
Shane Moran	12	SBI138	Biology - Senior (9th-12th grade)	Stocking Up For Winter
Erin Okey	10	SBI144	Biology - Senior (9th-12th grade)	pH of Plethodon hoffmani Habitats
Eliza Ray	10	SBI145	Biology - Senior (9th-12th grade)	The Effect of Water Fluoridation on Bone
Madeline Redhead-Kriston	11	SMH304b	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effects of Dietary Fat or Sucrose on Body Weight and Glucose Homeostasis and Interactions with an Antihistamine
Tian Schiera	11	SBI152	Biology - Senior (9th-12th grade)	The Effect of Dietary Changes on the Activity Levels and Circadian Rhythms of Gromphadorhina portentosa (Madagascar hissing cockroaches)
Raeleigh Smith	11	SBS137	Behavioral & Social Science - Senior (9th-12th grade)	Are you uncomfortable yet? Habits and how they form
Eman Soliman	11	SMH148	Medicine / Health / Microbiology - Senior (9th-12th grade)	The effect of Alum on purifying water
Muhsin Wahi-Anwar	11	SCM124	Computer Science / Math - Senior (9th-12th grade)	Different Classification Algorithms
Xiaorui Xing	10	SCH140	Chemistry - Senior (9th-12th grade)	Replacement reactions involving metals and copper chloride
Julian Yerger	10	SER136	Engineering / Robotics - Senior (9th-12th grade)	Copper-assisted chemical etching for silicon nanostructures

## Registered Participants by School

### Ingomar Middle School

Student	Grade	Project #	Project Category	Project Title
Naga Riya Boppudi	7	MPH105	Physics - Intermediate (7th-8th grade)	Will It Stop?
Dan Longo	6	JB117	Biological Sciences - Junior (6th Grade)	Mealworm Growth
Jamie Palone	8	MES120	Earth / Space / Environment - Intermediate (7th-8th grade)	Impact of Sound Waves in the Ocean
Arnav Ranade	8	MES122	Earth / Space / Environment - Intermediate (7th-8th grade)	Improving Recyclability of Pizza Boxes
Srishti Raviprakash	7	MES123	Earth / Space / Environment - Intermediate (7th-8th grade)	Bioplastics are Saving our Environment
Rajat Reddy	7	MCH156	Chemistry - Intermediate (7th-8th grade)	Fuel From Sun & H <sub>2</sub> O - Mimicking Nature
Victoria Ren	8	MCM107	Computer Science / Math - Intermediate (7th-8th grade)	Gender Distribution Paradox
Yuvan Suresh	7	MES127	Earth / Space / Environment - Intermediate (7th-8th grade)	Solar Max
Brendan White	7	MCH169	Chemistry - Intermediate (7th-8th grade)	How Does Fabric Softener Affect the Flammability of Different Fabrics



## Registered Participants by School

### Kentucky Avenue School

Student	Grade	Project #	Project Category	Project Title
Henry Fried	7	MPH114	Physics - Intermediate (7th-8th grade)	Magnetic and Physical Properties of Ferrofluids at Low Temperatures
Olina Mukherjee	6	JBI121	Biological Sciences - Junior (6th Grade)	Complex Social Behavior in Madagascar Hissing Cockroaches

## Registered Participants by School

### Lincoln Park Performing Arts Charter School

Student	Grade	Project #	Project Category	Project Title
Artisha Walker	12	SPH128	Physics - Senior (9th-12th grade)	Dancers in Motion: The Physics of a Pirouette

## Registered Participants by School

### Manchester Academic Charter School

Student	Grade	Project #	Project Category	Project Title
Roderick Armstrong	7	MPH101	Physics - Intermediate (7th-8th grade)	Measure the Splatter
Kinverlyn Fleming	7	MER111	Engineering / Robotics - Intermediate (7th-8th grade)	Remote Control Mars Rover
Denia Henderson	8	MER116	Engineering / Robotics - Intermediate (7th-8th grade)	Stronger Bridge
Kaitlyn McClain	6	JPE112	Physical Sciences & Engineering - Junior (6th Grade)	Veggie Power
Kyla Morris	6	JCH118	Chemistry - Junior (6th Grade)	Fun with Slime
Desirae Nance	8	MCH151	Chemistry - Intermediate (7th-8th grade)	Electrolyte Challenge
Xavier Nicopulos	6	JPE116	Physical Sciences & Engineering - Junior (6th Grade)	Volcanic Panic
Evan Oaks	6	JCH120	Chemistry - Junior (6th Grade)	Acid Balloons
Laila Wade	7	MCH166	Chemistry - Intermediate (7th-8th grade)	Homemade Lava Lamp
Serena Wyckoff	7	MPH151	Physics - Intermediate (7th-8th grade)	What colors in the light spectrum are best for plant growth?

## Registered Participants by School

### Marshall Middle School

Student	Grade	Project #	Project Category	Project Title
Vedha Avali	8	MBI103	Biology - Intermediate (7th-8th grade)	How Do personal genome variations affect drug metabolism?
Maanas Belambe	8	MER101	Engineering / Robotics - Intermediate (7th-8th grade)	Conserving Water with an Electronic Moisture Sensor
Akhil Bodahanapati	6	JPE300	Physical Sciences & Engineering - Junior (6th Grade)	Hydro Power
Lokesh Daita	6	JPE300	Physical Sciences & Engineering - Junior (6th Grade)	Hydro Power
Milun Jain	8	MPH119	Physics - Intermediate (7th-8th grade)	Charging an Electric Car Battery with a Solar Panel
Siya Jain	6	JBC301	Behavioral & Consumer Sciences - Junior (6th Grade)	The Effect of Education on Cafeteria Waste
Swathi Padmanabhan	6	JBI124	Biological Sciences - Junior (6th Grade)	The Wonders of Composting
Kolitha Perera	8	MPH135	Physics - Intermediate (7th-8th grade)	How Drag Affects Different Car Models
Aneri Shethji	6	JBC301	Behavioral & Consumer Sciences - Junior (6th Grade)	The Effect of Education on Cafeteria Waste
Hannah Shin	8	MMH123	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	BRAIN- A Novel Neurodegeneration Diagnostic Incorporating Brain-stripping, Region-growing, Analysis of Imaging, and Neuroanatomical Technologies
Sri Pradhyumna Sridhar	8	MBI139	Biology - Intermediate (7th-8th grade)	Water Contamination Leading to Water Scarcity
Sudharshan Srikanth	8	MES131	Earth / Space / Environment - Intermediate (7th-8th grade)	The negative effects of food scrap on Global Warming: (and what to do about it at a household level)"
Shomik Telang	8	MER143	Engineering / Robotics - Intermediate (7th-8th grade)	Solar Powered Vehicle for Soil Testing

## Registered Participants by School

### Mary of Nazareth Catholic School

Student	Grade	Project #	Project Category	Project Title
Abigail Bernick	8	MPH103	Physics - Intermediate (7th-8th grade)	May The Force Be With You
Gavin DeVerse	6	JCH107	Chemistry - Junior (6th Grade)	Color Changing Flames
Anthony Mejalli	6	JCH115	Chemistry - Junior (6th Grade)	Changing Gummy Bears
Jaxson Poziviak	6	JPE118	Physical Sciences & Engineering - Junior (6th Grade)	Just Head It?
Evan Yocca	7	MPH152	Physics - Intermediate (7th-8th grade)	The Strengths of Different Metals

## Registered Participants by School

### Mary Queen of Apostles

Student	Grade	Project #	Project Category	Project Title
Ryan Anderson	8	MMH101	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Maple Extract...For The Better or For the Worse?
Olivia DiNatale	8	MCH114	Chemistry - Intermediate (7th-8th grade)	Enzymes... Should They Stay or Should They Go?
Lily Giovannelli	8	MES104	Earth / Space / Environment - Intermediate (7th-8th grade)	Can Hydrophobic Coatings Prevent Corrosion?
Gabriella Mason	7	MCS123	Consumer Science - Intermediate (7th-8th grade)	Is Sugar-free Really Sugar-free?
Will Mason	8	MCH143	Chemistry - Intermediate (7th-8th grade)	Chill Out!
Reese Pallone	8	MCS128	Consumer Science - Intermediate (7th-8th grade)	What Color T-shirt is Best to Wear in Sunlight?
Morgan Phillips	7	MCS130	Consumer Science - Intermediate (7th-8th grade)	Swish, Swish, Rinse! Eggcelent Mouthwashes?

## Registered Participants by School

### Montessori Centre Academy

Student	Grade	Project #	Project Category	Project Title
Isabelle Kabara	6	JBI114	Biological Sciences - Junior (6th Grade)	Eyes Are Watching You!
Andrea Motschman	6	JBI120	Biological Sciences - Junior (6th Grade)	Concentration Inquisition
Natalia Orchard	6	JCH121	Chemistry - Junior (6th Grade)	Lecturing Litter

## Registered Participants by School

### Moon Area HS

Student	Grade	Project #	Project Category	Project Title
Chancharik Mitra	9	SCM120	Computer Science / Math - Senior (9th-12th grade)	Pattern Recognition with Neural Networks



## Registered Participants by School

### Moon Middle School

Student	Grade	Project #	Project Category	Project Title
HarAshish Arora	6	JPE101	Physical Sciences & Engineering - Junior (6th Grade)	Auto Fuel From Household Goods
Maura Brositz	7	MES304	Earth / Space / Environment - Intermediate (7th-8th grade)	Can N.T. Help Clean Oil Spills?
Jonathan Collins	8	MER301	Engineering / Robotics - Intermediate (7th-8th grade)	R.C. Volcano
John Hughes	8	MER301	Engineering / Robotics - Intermediate (7th-8th grade)	R.C. Volcano
Riya Kothari	8	MBS308	Behavioral & Social Science - Intermediate (7th-8th grade)	Ambiguous Illusions
Angela Lichwala	8	MBS308	Behavioral & Social Science - Intermediate (7th-8th grade)	Ambiguous Illusions
Owen Masry	8	MER301	Engineering / Robotics - Intermediate (7th-8th grade)	R.C. Volcano
Isabella Morris	7	MCH148	Chemistry - Intermediate (7th-8th grade)	The Mold Experience
Kamsi Odigboh	7	MES304	Earth / Space / Environment - Intermediate (7th-8th grade)	Can N.T. Help Clean Oil Spills?
Sydney Simon	6	JPE121	Physical Sciences & Engineering - Junior (6th Grade)	The Effect of Friction on Speed
Ananya Yendluri	8	MBS308	Behavioral & Social Science - Intermediate (7th-8th grade)	Ambiguous Illusions

## Registered Participants by School

### Mt. Lebanon High School

Student	Grade	Project #	Project Category	Project Title
Justin Chin	11	SBI108	Biology - Senior (9th-12th grade)	The Effects of Road Salt on Plants
Max Guthrie	11	SPH107	Physics - Senior (9th-12th grade)	How Surface Roughness Influences Friction
Carter Hall	11	SPH108	Physics - Senior (9th-12th grade)	Precipitation Insulation
Sein Lee	10	SBI129	Biology - Senior (9th-12th grade)	Maximizing E.coli Competence by Changing Cation Concentration
Petru Mihailescu	11	SCH126	Chemistry - Senior (9th-12th grade)	Alpha-hydrogen Bonds in Lewis Acid Control of Asymmetric Catalysis
Christian Polk	10	SES140	Earth / Space / Environment - Senior (9th-12th grade)	The Effects of Acid Mine Draining and Industrial Facilities on Bodies of Water
Jakob Schreiber	9	SPH125	Physics - Senior (9th-12th grade)	Fingerprint Distortion on Curved Surfaces
Rebecca Schwartz	11	SCH131	Chemistry - Senior (9th-12th grade)	Effect of Fracking on Buffering

## Registered Participants by School

### North Allegheny High School

Student	Grade	Project #	Project Category	Project Title
Zahra Ahmad	11	SBI100	Biology - Senior (9th-12th grade)	The Role of Platelets in Pulmonary Hypertension
Abhi Ajay	9	SBI101	Biology - Senior (9th-12th grade)	Healing Light Waves
Jordana Avigad	11	SBS101	Behavioral & Social Science - Senior (9th-12th grade)	Teens and Decision Making: The Choice Is Yours, Or Is It?
Kavya Balakumar	11	SMH100	Medicine / Health / Microbiology - Senior (9th-12th grade)	The Effects of Spices on Drug Dosage
David Ban	10	SMH101	Medicine / Health / Microbiology - Senior (9th-12th grade)	Mechanism of Mesobiliverdin against Oxidative Stress in Retinal Cells
Meghna Behari	9	SER101	Engineering / Robotics - Senior (9th-12th grade)	ResQbot: An Autonomous Echolocation-based Search and Rescue Water Robot for Natural Disasters
Sanjit Beriwal	10	SES301a	Earth / Space / Environment - Senior (9th-12th grade)	Enhanced Water Collection with Drones at Different Depths
Ashnaa Bhide	9	SER104	Engineering / Robotics - Senior (9th-12th grade)	Automated Status Reporting and Control of Systems Using IoT Sensor Data
Rachel Bina	9	SMH103	Medicine / Health / Microbiology - Senior (9th-12th grade)	Identification of Vibrio species from North Park Lake in Allegheny County Pennsylvania
Naga Shreya Boppudi	10	SCM103	Computer Science / Math - Senior (9th-12th grade)	What if your heart stops behind the wheel?
Catherine Cao	11	SBI107	Biology - Senior (9th-12th grade)	Nitrogen Fixation of Rhizobium-Legume Symbiosis
Dingding Chen	10	SER106	Engineering / Robotics - Senior (9th-12th grade)	Automatic High Beam Adjusting System
William Cheong	11	SCH107	Chemistry - Senior (9th-12th grade)	Characteristics of Antibubble Formation
Suan Cho	10	SER107	Engineering / Robotics - Senior (9th-12th grade)	Efficient Shapes of Small Hydro Turbines
Harshal Dahake	11	SMH303a	Medicine / Health / Microbiology - Senior (9th-12th grade)	Nervous Synapse Measuring Prosthetic Arm
Alexander Dunmyre	11	SBI114	Biology - Senior (9th-12th grade)	Alkalinity and Acidity Assessment of Anthocyanin
Aditi Edlabadkar	11	SMH116	Medicine / Health / Microbiology - Senior (9th-12th grade)	Utilizing Saliva as an Early Diagnostic Tool
Anuleka Elapavaluru	12	SBS111	Behavioral & Social Science - Senior (9th-12th grade)	Effects of the Uncanny Valley Theory on Learning with the Implicit Association Test
TJ Faber	11	SCM104	Computer Science / Math - Senior (9th-12th grade)	Creating an Intelligent Suicide Alert Application
Adelle Fernando	11	SCM105	Computer Science / Math - Senior (9th-12th grade)	A Machine Learning Approach to Classifying Acute Pain
Akshath Jain	12	SCM113	Computer Science / Math - Senior (9th-12th grade)	Utilizing Machine Learning to Optimize Wireless Communication by Reducing Interference
Kira Klein	11	SES127	Earth / Space / Environment - Senior (9th-12th grade)	Earthworm Earthworks
Andriy Lassowsky	11	SCM116	Computer Science / Math - Senior (9th-12th grade)	Redesigning the Clarinet Family
Christopher Lee	11	SCM117	Computer Science / Math - Senior (9th-12th grade)	Polynomial Maps of Finite Fields

## Registered Participants by School

### North Allegheny High School

Student	Grade	Project #	Project Category	Project Title
Ella Li	11	SCM118	Computer Science / Math - Senior (9th-12th grade)	Improving Password Security with Text-Dependent Speech Verification
Amanda Lu	11	SMH130	Medicine / Health / Microbiology - Senior (9th-12th grade)	Engineering Synthetic Helper Cells that Recognize Abnormal MUC1
Zehra Mehdi	10	SBI135	Biology - Senior (9th-12th grade)	Rad55 Phosphorylation and its Interaction with Csm2 to create Error Free DNA Repair
Emily Meinert	11	SES133	Earth / Space / Environment - Senior (9th-12th grade)	Mycoremediation and Phytoremediation with Fracking Fluids
Praneel Murthy	9	SCM122	Computer Science / Math - Senior (9th-12th grade)	Speech to Text Software: A Comparative Study
Arjun Narayan	9	SMH134	Medicine / Health / Microbiology - Senior (9th-12th grade)	Does Genetic Makeup Impact Opioid Effects?
Pavan Otthi	11	SMH303b	Medicine / Health / Microbiology - Senior (9th-12th grade)	Nervous Synapse Measuring Prosthetic Arm
Ashna Patel	9	SMH138	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effects of Aeration and Dissolved Oxygen on Gram-positive Pathogens
Natasha Porwal	9	SES141	Earth / Space / Environment - Senior (9th-12th grade)	Producing Biofuels From Algae
Kevin Qoyawayma	11	SPH123	Physics - Senior (9th-12th grade)	Railgun Launch System
Laura Schwendeman	11	SBI153	Biology - Senior (9th-12th grade)	Viability of Growing Phaseolus lunatus. on Mars
Abinav Sekhar	11	SES301b	Earth / Space / Environment - Senior (9th-12th grade)	Enhanced Water Collection with Drones at Different Depths
Shria Shyam	9	SBI157	Biology - Senior (9th-12th grade)	The Impact of Cultivating Halophiles along Saline Water Sources on Soil Salinity
Kelly Tang	9	SES150	Earth / Space / Environment - Senior (9th-12th grade)	Lead Adsorption Using Banana Peel
Shudipto Wahed	11	SMH152	Medicine / Health / Microbiology - Senior (9th-12th grade)	HPV-16-Positive Oropharyngeal Cancer Cells Require Viral E6/E7 Oncogene Expression for Survival
Futen Wang	10	SPH129	Physics - Senior (9th-12th grade)	Math and the Sun: Varying Angles of Solar Panels
Jean You	11	SMH154	Medicine / Health / Microbiology - Senior (9th-12th grade)	Microneedle Array-based Cutaneous Delivery of Protein Vaccine for Immunization

## Registered Participants by School

### Northern Garrett High School

Student	Grade	Project #	Project Category	Project Title
Leah Conklyn	11	SCM300a	Computer Science / Math - Senior (9th-12th grade)	New Negatives
Taylor Conner	11	SBI110	Biology - Senior (9th-12th grade)	Eggshell Tickness
Josie Durst	11	SBI300a	Biology - Senior (9th-12th grade)	Breaking Down The Carbs
Garrett Emory	10	SER300a	Engineering / Robotics - Senior (9th-12th grade)	Here Comes The Sun
Caitlyn Gilpin	10	SPH301a	Physics - Senior (9th-12th grade)	Let the Body's Hit the Floor
Jade Gish	10	SBS114	Behavioral & Social Science - Senior (9th-12th grade)	Memory Mnemonics
Jesse Harman	10	SER301a	Engineering / Robotics - Senior (9th-12th grade)	Arrow Location
Ryan Harvey	10	SER301b	Engineering / Robotics - Senior (9th-12th grade)	Arrow Location
McKenna Houser	11	SBI300b	Biology - Senior (9th-12th grade)	Breaking Down The Carbs
Megan Lindsey	10	SER303a	Engineering / Robotics - Senior (9th-12th grade)	The Affect Of Launch Angle On The Projectile Range Of A Trebuchet
Jacob Lowdermilk	10	SES131	Earth / Space / Environment - Senior (9th-12th grade)	This is your plant, this is your plant on acid... rain
Lauren Lowery	10	SBI132	Biology - Senior (9th-12th grade)	The Effect Of Mouthwash on Bacteria
Emily Mayles	10	SCH124	Chemistry - Senior (9th-12th grade)	The Best Whitening Toothpastes
Britni Moore	11	SMH302a	Medicine / Health / Microbiology - Senior (9th-12th grade)	dog kisses heal everything
Emily Ness	10	SPH122	Physics - Senior (9th-12th grade)	How Sharp is your Hearing? The Knowledge of Pitch
Anthony Paul	10	SER300b	Engineering / Robotics - Senior (9th-12th grade)	Here Comes The Sun
Casey Rounds	11	SCM300b	Computer Science / Math - Senior (9th-12th grade)	New Negatives
Elliott Schilpp	11	SER126	Engineering / Robotics - Senior (9th-12th grade)	Automated Cabinet
Taylor Sheehan	10	SPH301b	Physics - Senior (9th-12th grade)	Let the Body's Hit the Floor
Jetta Sherbin	10	SER303b	Engineering / Robotics - Senior (9th-12th grade)	The Affect Of Launch Angle On The Projectile Range Of A Trebuchet
Kyliana Sisler	11	SMH302b	Medicine / Health / Microbiology - Senior (9th-12th grade)	dog kisses heal everything
Bethany Umbel	10	SES151	Earth / Space / Environment - Senior (9th-12th grade)	A-Salting the Earth
Ella Warnick	10	SES152	Earth / Space / Environment - Senior (9th-12th grade)	Ecological Footprint Analysis
Mackenzie Weimer	10	SBS144	Behavioral & Social Science - Senior (9th-12th grade)	Distracted Driving
Parker Wilt	10	SER135	Engineering / Robotics - Senior (9th-12th grade)	One Arm Robot
Shawn Zimmerman	11	SER137	Engineering / Robotics - Senior (9th-12th grade)	Portable Solar Cell Phone Charger

## Registered Participants by School

### Norwin High School

Student	Grade	Project #	Project Category	Project Title
Kylie Arnold	10	SES101	Earth / Space / Environment - Senior (9th-12th grade)	Reducing Roadkill and Fusing Fragments
Harrison Barnett	10	SBS102	Behavioral & Social Science - Senior (9th-12th grade)	Fake News
Devin Barrett	10	SBS103	Behavioral & Social Science - Senior (9th-12th grade)	How Inattentional Blindness Varies by Gender
Abigale Brotz	12	SES105	Earth / Space / Environment - Senior (9th-12th grade)	Throwing Shade at Shade Balls
Leia Farroux	10	SER112	Engineering / Robotics - Senior (9th-12th grade)	Farming of the Future
Cecilia Fidler	10	SCM106	Computer Science / Math - Senior (9th-12th grade)	IoT: You've Got Mail
Skylar Hayden	12	SBI123	Biology - Senior (9th-12th grade)	Forensic Fingerprinting
Tyler Hines	12	SPH111	Physics - Senior (9th-12th grade)	Driving Blind
Jessica Holloway	12	SBS120	Behavioral & Social Science - Senior (9th-12th grade)	Perception Versus Reality of Teenage Cell Phone Use
Amanda Lee	10	SBS124	Behavioral & Social Science - Senior (9th-12th grade)	Comparing Online Tests and Written Tests
Sophia Melocchi	12	SBS128	Behavioral & Social Science - Senior (9th-12th grade)	Watch Your Step
Madeline Mihalchik	12	SBS129	Behavioral & Social Science - Senior (9th-12th grade)	The bystander effect as a function of age
Sidney Przybylski	11	SER124	Engineering / Robotics - Senior (9th-12th grade)	iSolar
George Ralph	12	SCM123	Computer Science / Math - Senior (9th-12th grade)	The Effects of UI Design on Memory
Kendra Scheideman	11	SES142	Earth / Space / Environment - Senior (9th-12th grade)	Water Source vs. Plant Growth
Ashley Svec	10	SBI164	Biology - Senior (9th-12th grade)	Genetic Websites : Real or Fake?
Alyssa Wagner	10	SCH138	Chemistry - Senior (9th-12th grade)	Understanding Drug Solubility
Benjamin Yanan	11	SES154	Earth / Space / Environment - Senior (9th-12th grade)	This paint's temperature isn't for me
Kathryn (Katy) Zapanta	12	SMH156	Medicine / Health / Microbiology - Senior (9th-12th grade)	DIY Emergency Water Filter

## Registered Participants by School

### Oakland Catholic High School

Student	Grade	Project #	Project Category	Project Title
Isabella Florian	9	SER113	Engineering / Robotics - Senior (9th-12th grade)	The Effect of Mass on Articular Cartilage Deterioration Within the Knee

## Registered Participants by School

### Our Lady of Fatima School

Student	Grade	Project #	Project Category	Project Title
Domenique Bourne	8	MBS105	Behavioral & Social Science - Intermediate (7th-8th grade)	Beauty in the Eye of the Beholder or Beheld?
Gianna Catanzarite	7	MBS106	Behavioral & Social Science - Intermediate (7th-8th grade)	The Brains Behind Where's Waldo
Meghan Cavender	6	JBI105	Biological Sciences - Junior (6th Grade)	That's Stinky
Leia Day	8	MES102	Earth / Space / Environment - Intermediate (7th-8th grade)	It All Depends On The Weather
Matthew Dewhirst	7	MER107	Engineering / Robotics - Intermediate (7th-8th grade)	The Robotic Car
Caitlyn Eiler	7	MER109	Engineering / Robotics - Intermediate (7th-8th grade)	Bristol Busters
Dominic Flitcraft	7	MES103	Earth / Space / Environment - Intermediate (7th-8th grade)	Mud Into Energy?
Nico Flitcraft	6	JBI108	Biological Sciences - Junior (6th Grade)	Measuring the Chance of Developing Celiac Disease
Thaddeus Gonzalez	7	MBS114	Behavioral & Social Science - Intermediate (7th-8th grade)	Are Video Games Good For Your Reflexes?
Colin Gould	6	JCH109	Chemistry - Junior (6th Grade)	It Will Glow Your Mind
Skiyah Hall	6	JBI111	Biological Sciences - Junior (6th Grade)	Liar, Liar, Pants Are On Fire
Sam Kirby	8	MCM102	Computer Science / Math - Intermediate (7th-8th grade)	Hacking Away
Shannon Massengill	8	MPH129	Physics - Intermediate (7th-8th grade)	Light Will Win the Race
Ashley McCullough	7	MPH131	Physics - Intermediate (7th-8th grade)	How High Does It Take To Loop the Loop?
Emma Meinert	8	MCH147	Chemistry - Intermediate (7th-8th grade)	What's the best stain remover?
Emma Miller	6	JPE113	Physical Sciences & Engineering - Junior (6th Grade)	Ice...How Curious Are You?
Kirstin Panteleo	8	MBS132	Behavioral & Social Science - Intermediate (7th-8th grade)	What Do You Recall?
Madison Pascia	7	MBS134	Behavioral & Social Science - Intermediate (7th-8th grade)	Smile or Smirk
Alexis Penatzer	6	JBI125	Biological Sciences - Junior (6th Grade)	Can You Handle the Heat
Laina Polidora	6	JBC113	Behavioral & Consumer Sciences - Junior (6th Grade)	Finger Families
Nathan Polidora	6	JBC112	Behavioral & Consumer Sciences - Junior (6th Grade)	Can Kids Crack the Case?
Taylor Roberts	7	MPH138	Physics - Intermediate (7th-8th grade)	Get A Grip
Lauren Scaarpone	6	JCH123	Chemistry - Junior (6th Grade)	Would you "dye" for that?
Allison Scarpone	6	JBI127	Biological Sciences - Junior (6th Grade)	Got Lactose
Nathan Scarpone	6	JPE120	Physical Sciences & Engineering - Junior (6th Grade)	Take Flight
Jericho Schmidt	8	MER136	Engineering / Robotics - Intermediate (7th-8th grade)	I Scream You Scream
Luke Waszyn	7	MPH148	Physics - Intermediate (7th-8th grade)	Momentum or No-Mentum



## Registered Participants by School

### Our Lady of Grace Catholic School

Student	Grade	Project #	Project Category	Project Title
Sofi Adams	8	MBI100	Biology - Intermediate (7th-8th grade)	Planaria Regeneration
Aidan Albert	8	MCH100	Chemistry - Intermediate (7th-8th grade)	Blue Dyes in Gatorade
Rachel Bayer	8	MCH103	Chemistry - Intermediate (7th-8th grade)	Does Kool-Aid Affect How Ice Melts?
Madeline Debski	8	MPH110	Physics - Intermediate (7th-8th grade)	The Life of a Stored Battery
Geno DeFrank	7	MPH111	Physics - Intermediate (7th-8th grade)	Distance of Car by Different Angles
Sean Dougherty	8	MCH116	Chemistry - Intermediate (7th-8th grade)	Salt and Water and Rust Oh My!
Katie Drauch	8	MCS111	Consumer Science - Intermediate (7th-8th grade)	What toothpaste brand will whiten teeth the fastest?
Colton Johnston	8	MCH129	Chemistry - Intermediate (7th-8th grade)	Change of Melting Point in Wax
Sophie Maida	8	MCH141	Chemistry - Intermediate (7th-8th grade)	Water Boiling with Salt
Thomas Phillips	8	MCH155	Chemistry - Intermediate (7th-8th grade)	Which over the counter antacids neutralize the most?
Nicolas Polk	8	MCS131	Consumer Science - Intermediate (7th-8th grade)	What bag can hold the most weight?
Joe Sherman	8	MCH158	Chemistry - Intermediate (7th-8th grade)	How does Kool-aid powder effect the boiling and freezing point of water?
Mario Smith	8	MPH142	Physics - Intermediate (7th-8th grade)	Blocking Radio Frequency Identification Signals
Margaret Steich	8	MCH161	Chemistry - Intermediate (7th-8th grade)	Affect of Cornstarch on Bath Bomb Fizz Rate
Carter Yanosick	8	MCH171	Chemistry - Intermediate (7th-8th grade)	Melting Rate of Ice Cream
Cooper Yanosick	8	MCH172	Chemistry - Intermediate (7th-8th grade)	How does table salt affect the freezing point of water?

## Registered Participants by School

### PA Cyber Charter School

Student	Grade	Project #	Project Category	Project Title
Manal Boukaabar	7	MCS105	Consumer Science - Intermediate (7th-8th grade)	Moisturizer: All Natural Homemade vs. Store-Bought
Sarah Seader	9	SCH132	Chemistry - Senior (9th-12th grade)	Pb On the Rise

## Registered Participants by School

### Penn-Trafford HS

Student	Grade	Project #	Project Category	Project Title
Brian Lee	9	SCH301b	Chemistry - Senior (9th-12th grade)	Non-Toxic Anti-Fouling Paint

## Registered Participants by School

### Peters Township High School

Student	Grade	Project #	Project Category	Project Title
Pratiik Kaushik	12	SBI125	Biology - Senior (9th-12th grade)	Antifungal Agents Alter Drug Levels Through Inhibition of Metabolism
Mark McFarlin	11	SER119	Engineering / Robotics - Senior (9th-12th grade)	Viscosity and Pendulum Dampening
Nicole Munne	12	SBI140	Biology - Senior (9th-12th grade)	Development of an Invitro Liver Model for NAFLD
Nolan Wang	9	SER134	Engineering / Robotics - Senior (9th-12th grade)	Electric Field Dectector

## Registered Participants by School

### Pine-Richland High School

Student	Grade	Project #	Project Category	Project Title
James Baxter	12	SER100	Engineering / Robotics - Senior (9th-12th grade)	Fencer Wireless Scoring System
Chelsea Carver	12	SES108	Earth / Space / Environment - Senior (9th-12th grade)	AMD - Mathies Mine Analysis
Dana Chan	10	SCH106	Chemistry - Senior (9th-12th grade)	Desiccant reusal
Ethan Chan	9	SPH102	Physics - Senior (9th-12th grade)	Rainwater Free Minivan Rear Window
Devin Golla	11	SCM107	Computer Science / Math - Senior (9th-12th grade)	Gen Z Votes
Arjan Guglani	11	SCM108	Computer Science / Math - Senior (9th-12th grade)	Using Computational Facial Analysis to Diagnose Sleep Disorders and Improve Sleep Quality
Elly(Jinwon) Jang	9	SCH116	Chemistry - Senior (9th-12th grade)	Effect of pH on duration of vegetables
Meghan McLoughlin	11	SBI134	Biology - Senior (9th-12th grade)	UHT Pasteurization
Justin Waltrip	10	SCM125	Computer Science / Math - Senior (9th-12th grade)	Genetic Convolutional Neural Network Optimization for Wildfire Prevention
Kevin Zhou	11	SCM126	Computer Science / Math - Senior (9th-12th grade)	The Fastest Kessel Run

## Registered Participants by School

### Pine-Richland Middle School

Student	Grade	Project #	Project Category	Project Title
Matthew Farmar	8	MES301	Earth / Space / Environment - Intermediate (7th-8th grade)	From Waste to Watts
Amish Sethi	8	MES301	Earth / Space / Environment - Intermediate (7th-8th grade)	From Waste to Watts

## Registered Participants by School

### Pittsburgh Alderdice High School

Student	Grade	Project #	Project Category	Project Title
Benjamin Barash	11	SCH103	Chemistry - Senior (9th-12th grade)	Sensing NO3 using g-C3N4 on rGO
Hannah Barsouk	9	SES102	Earth / Space / Environment - Senior (9th-12th grade)	The Effect of Climate Change on Natural Disasters
Vikram Bhat	12	SER103	Engineering / Robotics - Senior (9th-12th grade)	A Novel Control Algorithm for Teleoperated Robotic Surgeries
Jared Bisceglia	12	SES103	Earth / Space / Environment - Senior (9th-12th grade)	Analyzing Water Quality Using Real-Time Sensor Devices
Benjamin Cummings	11	SCH110	Chemistry - Senior (9th-12th grade)	Carbon Nanotube-Based Flu Sensor
Maeve Denshaw	11	SBS109	Behavioral & Social Science - Senior (9th-12th grade)	Introverts Vs. Extroverts
Jakobi Deslouches	11	SMH112	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effect of AMPs from <i>A. maculatum</i> on the inhibition of bacterial growth
Uthman Fadu	12	SBI115	Biology - Senior (9th-12th grade)	Identifying new protein cargo for $\alpha$ -arrestins using Evolutionary Rate Covariation (ERC)
Joseph Finkelstein	12	SCH112	Chemistry - Senior (9th-12th grade)	Chloride Doping of Perovskite Solar Cells
Ni Gayatri	11	SCH113	Chemistry - Senior (9th-12th grade)	Thiolated Ligand Quantification on Silver Nanoparticles
Giulia Giampapa	12	SES115	Earth / Space / Environment - Senior (9th-12th grade)	Green Roofs
Adelina Grusca	11	SBI121	Biology - Senior (9th-12th grade)	Effect of Diaphanous Mutation on Shroom Expression
Michal Hajlasz	9	SCH115	Chemistry - Senior (9th-12th grade)	Optimizing Molecular Nanoforce Sensors
Duncan Hausman	12	SPH109	Physics - Senior (9th-12th grade)	Safe Probing of Transmon Qubits
Madeline Herrup	12	SCM111	Computer Science / Math - Senior (9th-12th grade)	Comparing Grapheme And Phoneme Models
Liliana King	12	SPH114	Physics - Senior (9th-12th grade)	Effects of Circularly Polarized Light on Plants
Ryan Lucht	12	SER115	Engineering / Robotics - Senior (9th-12th grade)	Alternative Gadget to Replace ITF Standards
Jeffrey Martin	12	SER116	Engineering / Robotics - Senior (9th-12th grade)	Robot for Powder Distribution
Ram Mehta	11	SBI136	Biology - Senior (9th-12th grade)	Controlled Growth of Nutrients in Cells
Beatrice Milnes	12	SBI137	Biology - Senior (9th-12th grade)	Macrophages are required for Adult Mouring Gecko ( <i>Lepidodactylus lugubris</i> ) Tail Regeneration
Adam Moritz	12	SCM121	Computer Science / Math - Senior (9th-12th grade)	Material Viscosity Prediction under Normal Swallowing Conditions via High-Resolution Cervical Auscultation
Daniela Naumov	10	SMH135	Medicine / Health / Microbiology - Senior (9th-12th grade)	NDUFA6 Gene and TBI Outcomes
Kazuma Parkinson	11	SES138	Earth / Space / Environment - Senior (9th-12th grade)	Study of Lead in Pittsburgh Water
Mia Pellegrini	11	SCH129	Chemistry - Senior (9th-12th grade)	Developing an Improved Marker for Protein Purification
Max Rosen	11	SBS133	Behavioral & Social Science - Senior (9th-12th grade)	Artistic Expression and Refugees

## Registered Participants by School

### Pittsburgh Alderdice High School

Student	Grade	Project #	Project Category	Project Title
Nicolas Saba	12	SBI151	Biology - Senior (9th-12th grade)	the Use of Microbubbles and Ultrasound Therapy to Treat Blood Clots
Thomas Saba	11	SBI150	Biology - Senior (9th-12th grade)	Norwegian Saliva Samples
Isabel Segel	12	SBS135	Behavioral & Social Science - Senior (9th-12th grade)	Analysis of the Influence of Gender In Corporate Campaign Finance
Zachary Smolar	11	SCH134	Chemistry - Senior (9th-12th grade)	Kinetic Stability of Fluorescent DNA Nanotags
Leo Sweeney	11	SBS139	Behavioral & Social Science - Senior (9th-12th grade)	How did non-voters impact the 2016 election?
Sarah Wetzel	11	SMH153	Medicine / Health / Microbiology - Senior (9th-12th grade)	Optimizing a Microemulsion to Reduce Toxicity
Alyssa Zito	10	SES155	Earth / Space / Environment - Senior (9th-12th grade)	Cost Effective Net Zero House



## Registered Participants by School

### Pittsburgh Science and Technology Academy

Student	Grade	Project #	Project Category	Project Title
Bana AlMoussa	10	SBI102	Biology - Senior (9th-12th grade)	Jaguar Protein's Role in Apical Constriction in Drosophila Melanogaster
Yara AlMoussa	6	JBI100	Biological Sciences - Junior (6th Grade)	Effect of Home Remedies on E. coli
Abidemi Asanbe	9	SMH300a	Medicine / Health / Microbiology - Senior (9th-12th grade)	Wrestle the Vessel
Gibran Biswas	11	SCM101	Computer Science / Math - Senior (9th-12th grade)	Using R to visualize gene expression data
Jalen Bonner	11	SCM102	Computer Science / Math - Senior (9th-12th grade)	Predator and Prey Relationships
Alexandra Borelli	12	SBI105	Biology - Senior (9th-12th grade)	Using Brain Imaging Analysis to Address Alzheimer's vs. Physical Exercise
Maya Cranor	9	SPH104	Physics - Senior (9th-12th grade)	Robotic Ball Shooter Mechanism
Nina Cranor	6	JPE103	Physical Sciences & Engineering - Junior (6th Grade)	What Blocks Wi-Fi Signal?
Shane Cranor	11	SER108	Engineering / Robotics - Senior (9th-12th grade)	The Viability of Cylindrical Loudspeaker Enclosures
Shreyo Das	10	SBI111	Biology - Senior (9th-12th grade)	Testing Whether a Cofilin Pathway Genetically Interacts with Shroom to cause Apical Construction in Drosophila melanogaster
David Donehue	12	SBI112	Biology - Senior (9th-12th grade)	A New Thrombin Signaling Pathway
Jasmine Dupree	10	SBI301a	Biology - Senior (9th-12th grade)	Temperatures effect on gene expression
Liam Hainsworth	12	SCM109	Computer Science / Math - Senior (9th-12th grade)	Benchmarking Parallel Tempering Parameter Estimation Algorithms
Alec Helbling	12	SCM110	Computer Science / Math - Senior (9th-12th grade)	CNN Protein Binding Site Predictor
Amira Johnson	9	SMH300b	Medicine / Health / Microbiology - Senior (9th-12th grade)	Wrestle the Vessel
Anna Kogos	7	MCH132	Chemistry - Intermediate (7th-8th grade)	Ionic vs. Covalent Bonding
Skylar Kunkel	10	SBI301b	Biology - Senior (9th-12th grade)	Temperatures effect on gene expression
Sam Lieberman	11	SBI131	Biology - Senior (9th-12th grade)	Investigating the Ras/Raf/MapK pathway in Drosophila
Tilee Miller	9	SMH300c	Medicine / Health / Microbiology - Senior (9th-12th grade)	Wrestle the Vessel
Nicholas Naumov	12	SBI142	Biology - Senior (9th-12th grade)	Effects of Peanut Allergen on the Barrier Function of the Skin
John Rogers	12	SMH144	Medicine / Health / Microbiology - Senior (9th-12th grade)	Specific Mutation Pinpointing in Chd1
Harkamal Singh	9	SES146	Earth / Space / Environment - Senior (9th-12th grade)	Effect of Reflected Light on Growth
Lauren Smith	9	SBI161	Biology - Senior (9th-12th grade)	The Effects of pH of Water on Plants
Anand Sooriamurthi	8	MCM109	Computer Science / Math - Intermediate (7th-8th grade)	Bike Sharing in Pittsburgh and Beyond
Santosh Sooriamurthi	6	JPE125	Physical Sciences & Engineering - Junior (6th Grade)	Explorations of Benfords' Law
Sophia Spiker	12	SBI163	Biology - Senior (9th-12th grade)	It's Not Easy Being Green

## Registered Participants by School

### Pittsburgh Science and Technology Academy

Student	Grade	Project #	Project Category	Project Title
Prishti Tyagi	8	MPH147	Physics - Intermediate (7th-8th grade)	The Effect of Air Temperature on Time Pressure and Mileage
Sophia Yurkovetsky	12	SMH155	Medicine / Health / Microbiology - Senior (9th-12th grade)	Sex Differences of vSMC Functionality in BAV Patients
Joshua Zito	12	SER138	Engineering / Robotics - Senior (9th-12th grade)	CVFOR Object Following and Avoidance

## Registered Participants by School

### Providence Heights Alpha School

Student	Grade	Project #	Project Category	Project Title
Luca Assandri	7	MBI102	Biology - Intermediate (7th-8th grade)	Game of Salads: An Interstellar Song of Lettuce and Radishes
Gabrielle Corcoran	8	MER106	Engineering / Robotics - Intermediate (7th-8th grade)	Which Pinewood Derby Car Is the Fastest?
Christina Eid	8	MCH119	Chemistry - Intermediate (7th-8th grade)	The Effect of Eggs on a Brownie's Height
Oleg Hartman	8	MCM101	Computer Science / Math - Intermediate (7th-8th grade)	Which Method for Solving a Rubik's Cube is Fastest?
Konrad Hoffman	8	MCH128	Chemistry - Intermediate (7th-8th grade)	How Does River Health Vary in the Allegheny River?
Carson Jacob	8	MBS117	Behavioral & Social Science - Intermediate (7th-8th grade)	Child Dexterity and Child Resistant Containers
Helen Katyal	7	MES110	Earth / Space / Environment - Intermediate (7th-8th grade)	Take a Peek at What's In Your Creek
Mia Lowry	7	MES114	Earth / Space / Environment - Intermediate (7th-8th grade)	Keeping Fleece Fluffy
Sofia Mancing	7	MCS121	Consumer Science - Intermediate (7th-8th grade)	Mom's Hair Scare
Jackson McGrath	8	MES116	Earth / Space / Environment - Intermediate (7th-8th grade)	Remediation of Oil Contaminated Soil
Evan Moncheck	8	MER127	Engineering / Robotics - Intermediate (7th-8th grade)	Are Trebuchets Really Medieval and Can They Be Improved?
Regina Palladino	7	MES119	Earth / Space / Environment - Intermediate (7th-8th grade)	What Materials Can Make Environmentally Friendly Plastics?
Andrew Pritchard	8	MER131	Engineering / Robotics - Intermediate (7th-8th grade)	How Does Mass Affect the Performance of a Drone?
Chris Smith	7	MER138	Engineering / Robotics - Intermediate (7th-8th grade)	At What Angle Can A Goal Be Scored?
Katie Snyder	7	MCH159	Chemistry - Intermediate (7th-8th grade)	How Much Fat Is In Your Food?

## Registered Participants by School

### Queen of Angels

Student	Grade	Project #	Project Category	Project Title
Megan Barrett	7	MCH101	Chemistry - Intermediate (7th-8th grade)	Rethink Your Drink
Riana Booher	8	MPH104	Physics - Intermediate (7th-8th grade)	Measure the Splatter
Anna Brown	6	JCH103	Chemistry - Junior (6th Grade)	Sour Apples
Nicholas Brown	8	MPH107	Physics - Intermediate (7th-8th grade)	Making An Impact On Football Helmets
Vincent Brown	6	JBI104	Biological Sciences - Junior (6th Grade)	The Dirt On Detergent
Nate Dlugos	7	MCH115	Chemistry - Intermediate (7th-8th grade)	Sip All Day, Get Decay!
Nicholas Dlugos	6	JPE104	Physical Sciences & Engineering - Junior (6th Grade)	Stretch It!
Gabriela Fennell	6	JBC104	Behavioral & Consumer Sciences - Junior (6th Grade)	Want to Read a Good Book?
Michael Finn	7	MCH120	Chemistry - Intermediate (7th-8th grade)	Oh, Where Did it Go?
Nicholas Finn	7	MCH121	Chemistry - Intermediate (7th-8th grade)	Snap! Crackle! Pop!
Dominic Gadagno	6	JBC105	Behavioral & Consumer Sciences - Junior (6th Grade)	Does Practice Make Perfect?
Andrew Gentile	7	MCH124	Chemistry - Intermediate (7th-8th grade)	Dissolving Ice with Salt
Haley Gill	7	MMH109	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Maze Runner
AnnaGrace Hall	6	JPE107	Physical Sciences & Engineering - Junior (6th Grade)	What Wood You Use?
Christopher Hall	8	MER115	Engineering / Robotics - Intermediate (7th-8th grade)	Is It Sturdy?
Jonathan Hall	8	MCH127	Chemistry - Intermediate (7th-8th grade)	Vitamin C Mystery
Ashlynn Johnson	6	JPE108	Physical Sciences & Engineering - Junior (6th Grade)	Iron For Breakfast?
Jillian Korpar	6	JCH112	Chemistry - Junior (6th Grade)	Which Stains Your Teeth More; Tea or Coffee
Evan Link	7	MPH128	Physics - Intermediate (7th-8th grade)	Parachutes Are A Big Drag
Antonio Marra	6	JCH113	Chemistry - Junior (6th Grade)	Shiny Pennies
Andrew Massari	8	MCH144	Chemistry - Intermediate (7th-8th grade)	Battery Survival
Julie McGaughey	7	MBS125	Behavioral & Social Science - Intermediate (7th-8th grade)	Fear of Distress
Krista McWilliams	8	MCH146	Chemistry - Intermediate (7th-8th grade)	Cloudy With A Chance Of Acid
Lily Montore	6	JCH117	Chemistry - Junior (6th Grade)	The Fun of Bubbles at Home
Almetta Mull	7	MCH149	Chemistry - Intermediate (7th-8th grade)	Stretchy Slime Time!
Jennifer Novak	6	JCH119	Chemistry - Junior (6th Grade)	The Effect of Baking Powder
Thomas Phillips	7	MER130	Engineering / Robotics - Intermediate (7th-8th grade)	Free Energy!
Lydia Reith	6	JBC114	Behavioral & Consumer Sciences - Junior (6th Grade)	I Heart Video Games
Troy Ricketts	6	JPE119	Physical Sciences & Engineering - Junior (6th Grade)	Can Fruits Or Vegetables Supply Power To An LED?
Rylee Sirnic	7	MBS143	Behavioral & Social Science - Intermediate (7th-8th grade)	Someone's On Pointe!
Antonia Stickle	6	JBC118	Behavioral & Consumer Sciences - Junior (6th Grade)	It's All In The Brain!
Nicholas Szekely	6	JPE127	Physical Sciences & Engineering - Junior (6th Grade)	Jumping Sparks

## Registered Participants by School

### Queen of Angels

Student	Grade	Project #	Project Category	Project Title
Jacob Visk	7	MBI142	Biology - Intermediate (7th-8th grade)	Acidic or Not
Gabriel Yant	6	JCH127	Chemistry - Junior (6th Grade)	How Permanent is Permant
Kenny Zimmerman	8	MCH174	Chemistry - Intermediate (7th-8th grade)	Storage Wars: How Does Storage Temperature Affect Ph?

## Registered Participants by School

### Sacred Heart Elementary School

Student	Grade	Project #	Project Category	Project Title
Eric Fredette	8	MER112	Engineering / Robotics - Intermediate (7th-8th grade)	Going with the Flow
Grace Kaczmarek	7	MCH130	Chemistry - Intermediate (7th-8th grade)	Candy Chromatography
Henry Leavitt	7	MCH135	Chemistry - Intermediate (7th-8th grade)	Electrocution as a Medium
Thomas Lee	7	MCH136	Chemistry - Intermediate (7th-8th grade)	Poop to Power
Trinity Lockwood-Morris	8	MCS120	Consumer Science - Intermediate (7th-8th grade)	Sugar in Soda
Ava Maglin	7	MCH140	Chemistry - Intermediate (7th-8th grade)	Dissolving Candy...What Will Happen?
Clark McCord	8	MCH145	Chemistry - Intermediate (7th-8th grade)	Filtering Water with Carbon
Fiorente Pampena	8	MES121	Earth / Space / Environment - Intermediate (7th-8th grade)	Oil Spills and Wildlife
Pavle Slepcev	6	JPE123	Physical Sciences & Engineering - Junior (6th Grade)	What Material catches the most Humidity?
Will Speers	6	JPE126	Physical Sciences & Engineering - Junior (6th Grade)	How to Build a Better Battery
Daniel Thomas	8	MPH145	Physics - Intermediate (7th-8th grade)	Testing for Electrolytes
Joseph Thomas	7	MPH144	Physics - Intermediate (7th-8th grade)	Musical Instrument Waveforms
Harris Woodward	7	MES130	Earth / Space / Environment - Intermediate (7th-8th grade)	What Blocks UV-A Rays?

## Registered Participants by School

### Seneca Valley High School

Student	Grade	Project #	Project Category	Project Title
Nicolas Andreassi	12	SPH300a	Physics - Senior (9th-12th grade)	Heated Snowboard
Cailee Cheski	10	SMH108	Medicine / Health / Microbiology - Senior (9th-12th grade)	Biofilm Growth on Various Surfaces
Emma Choban	11	SCH108	Chemistry - Senior (9th-12th grade)	Fueling the Future
David Choi	9	SCH301a	Chemistry - Senior (9th-12th grade)	Non-Toxic Anti-Fouling Paint
Bryce Corrigan	12	SBS108	Behavioral & Social Science - Senior (9th-12th grade)	The Color of your Feelings
Isabella Hagan	11	SMH301a	Medicine / Health / Microbiology - Senior (9th-12th grade)	Antibiotic Resistance Crisis: Solved by Copper
Mark Hemmerlin	11	SMH301b	Medicine / Health / Microbiology - Senior (9th-12th grade)	Antibiotic Resistance Crisis: Solved by Copper
Kenneth Hess	11	SCM112	Computer Science / Math - Senior (9th-12th grade)	An Analysis of Non-Modular Cryptography
Kelsey Majeski	12	SCH123	Chemistry - Senior (9th-12th grade)	Wavelengths
Sam McCune	10	SPH120	Physics - Senior (9th-12th grade)	Acoustic Phone Speaker Amplification
Brooke Raschke	11	SMH141	Medicine / Health / Microbiology - Senior (9th-12th grade)	Biofilms and Catheters
Emma Reynolds	9	SBI146	Biology - Senior (9th-12th grade)	Mollusk Slime vs. Synthetic Glues
Bailey Salameh	10	SBS134	Behavioral & Social Science - Senior (9th-12th grade)	Stress and Free Time in Teachers
Justin Stopar	10	SPH126	Physics - Senior (9th-12th grade)	Effects of Magnets on an electric flow
Olivia Tilton	9	SCH137	Chemistry - Senior (9th-12th grade)	Homemade Polarimeter with Chiral Molecules
Makayla Washington	11	SMH301c	Medicine / Health / Microbiology - Senior (9th-12th grade)	Antibiotic Resistance Crisis: Solved by Copper
Dmitri Zalnasky	12	SPH300b	Physics - Senior (9th-12th grade)	Heated Snowboard

## Registered Participants by School

### Seton LaSalle Catholic High School

Student	Grade	Project #	Project Category	Project Title
Allyson Foster	11	SBI117	Biology - Senior (9th-12th grade)	The Effects of Household Chemicals on Plant Life
Hannah Kendrick	12	SCH120	Chemistry - Senior (9th-12th grade)	Determination of Vitamin C Concentration by Redox Titration
Skyler Wrubleski	9	SBI167	Biology - Senior (9th-12th grade)	Pulmonary and Cardiac Changes in an Acapella Group



## Registered Participants by School

### Sewickley Academy

Student	Grade	Project #	Project Category	Project Title
Prateek Adurty	9	SCH100	Chemistry - Senior (9th-12th grade)	Biofuel Energy Optimization Using Calorimetry

## Registered Participants by School

### Shady Side Academy

Student	Grade	Project #	Project Category	Project Title
Shreya Gulati	11	SCH114	Chemistry - Senior (9th-12th grade)	AMD-Analysis of Mine Drainage
Feno Monaco	10	SES135	Earth / Space / Environment - Senior (9th-12th grade)	What's Up With Water
Jason Wu	9	SBI168	Biology - Senior (9th-12th grade)	Natural Characteristics That Lead to Superhydrophobicity

## Registered Participants by School

### Shady Side Academy Middle School

Student	Grade	Project #	Project Category	Project Title
Steven Liu	8	MER124	Engineering / Robotics - Intermediate (7th-8th grade)	Electronic Prevention of Rust

## Registered Participants by School

### South Fayette High School

Student	Grade	Project #	Project Category	Project Title
Siddhartha Khajanchi	9	SCM114	Computer Science / Math - Senior (9th-12th grade)	A Novel Solution for Drunk Driving - Voice Recognition Start
Zoe Koutavas	9	SER302a	Engineering / Robotics - Senior (9th-12th grade)	Hydroelectricity: A Necessity in Pittsburgh
Parv Shrivastava	10	SER128	Engineering / Robotics - Senior (9th-12th grade)	Distracted Driving Detection and Prevention using Sensor Fusion and Machine Learning
Spruha Vashi	9	SER302b	Engineering / Robotics - Senior (9th-12th grade)	Hydroelectricity: A Necessity in Pittsburgh

## Registered Participants by School

### South Fayette MS

Student	Grade	Project #	Project Category	Project Title
Vidhisha Chahande	6	JPE102	Physical Sciences & Engineering - Junior (6th Grade)	Generating Electricity Through Waves
Sia Matreja	7	MMH302	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	The Effect That The Five-Second Rule Has On People's Health
Isabella Newman	7	MCH152	Chemistry - Intermediate (7th-8th grade)	The Importance of Ingredients in Cupcakes
Nimish Rai	6	JCH122	Chemistry - Junior (6th Grade)	The pHacts of Liquids: Temperature's Effect on pH values
Praman Rai	8	MBI135	Biology - Intermediate (7th-8th grade)	Thirsty Plants
Smriti Wagle	8	MMH302	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	The Effect That The Five-Second Rule Has On People's Health

## Registered Participants by School

### Southern Garrett High School

Student	Grade	Project #	Project Category	Project Title
Sophia Bishoff	9	SCH104	Chemistry - Senior (9th-12th grade)	Nature's pH Indicators
Meghan Bittinger	9	SBI104	Biology - Senior (9th-12th grade)	Family Fingerprints
Holly Buckley	10	SES106	Earth / Space / Environment - Senior (9th-12th grade)	A New Solution to Pollution
Katherine Catulle	10	SES109	Earth / Space / Environment - Senior (9th-12th grade)	NaCl --> H <sub>2</sub> O
Claire Groves	12	SBS117	Behavioral & Social Science - Senior (9th-12th grade)	Are Smart Phones Making us Dumber?
Brogen Kealy	9	SPH113	Physics - Senior (9th-12th grade)	Measuring the Speed of Light
Kristen Kope	12	SBI128	Biology - Senior (9th-12th grade)	Flowers Vs. Environment
Hana Nazelrod	9	SCH128	Chemistry - Senior (9th-12th grade)	The Hard Boiled Egg
Daniel Nickel	10	SMH136	Medicine / Health / Microbiology - Senior (9th-12th grade)	Let's Talk Pressure
Emily Pysell	9	SER125	Engineering / Robotics - Senior (9th-12th grade)	Does the amount of air pressure in a soccer ball affect the time it takes to reach the net?
Aaliyah Rhodes	9	SBI147	Biology - Senior (9th-12th grade)	Strawberry Fields of DNA
Madison Richard	11	SBS132	Behavioral & Social Science - Senior (9th-12th grade)	In the Room...
Alexandra Schofield	9	SMH146	Medicine / Health / Microbiology - Senior (9th-12th grade)	What is the best thing to do before bed?
Isaiah Skipper	12	SER129	Engineering / Robotics - Senior (9th-12th grade)	Hinge Lock
Mikala Spiker	10	SBS138	Behavioral & Social Science - Senior (9th-12th grade)	Gender Stereotypes: Past or Still Present?
Rachael Tichinel	9	SPH127	Physics - Senior (9th-12th grade)	Wood's Resistance to Splitting
Sheyenne Tichnell	12	SCH136	Chemistry - Senior (9th-12th grade)	Get the Lead Out
Sierra Tichnell	11	SBS141	Behavioral & Social Science - Senior (9th-12th grade)	Who Likes What?
Olivia Warne	9	SBS143	Behavioral & Social Science - Senior (9th-12th grade)	Drive React Stay Alive
Savannah Washington	9	SCH139	Chemistry - Senior (9th-12th grade)	Does a Liquid's Surface Tension and Viscosity change with Different Temperatures?

## Registered Participants by School

### St. Agnes

Student	Grade	Project #	Project Category	Project Title
Jose Alberto	6	JBC100	Behavioral & Consumer Sciences - Junior (6th Grade)	Burning Candles
Ian Baker	8	MCS101	Consumer Science - Intermediate (7th-8th grade)	Hook 'em Up
Alaina Beal	7	MBI106	Biology - Intermediate (7th-8th grade)	Susceptible Soils
Keiara Beermann	8	MBI107	Biology - Intermediate (7th-8th grade)	Grow Your Garden Without Dirt
Richard Beermann	6	JBC101	Behavioral & Consumer Sciences - Junior (6th Grade)	How Long is the Life of a Battery?
Elizabeth Bennett	7	MER102	Engineering / Robotics - Intermediate (7th-8th grade)	Operation Earthquake Proof
Abigail Bevan	8	MCH105	Chemistry - Intermediate (7th-8th grade)	To Freeze or Not to Freeze?
Alyssa Bevan	6	JCH102	Chemistry - Junior (6th Grade)	Here Today, Gone Tomorrow
Brandon Borcik	8	MPH106	Physics - Intermediate (7th-8th grade)	Go Green
Noah Coppola	6	JCH106	Chemistry - Junior (6th Grade)	Ooey Goopy Syrup
Carson Finney	7	MER110	Engineering / Robotics - Intermediate (7th-8th grade)	Up Up and Away
Steven Galiyas	7	MCS116	Consumer Science - Intermediate (7th-8th grade)	How Much Iron is in Cereal
Preston Janusek	6	JCH111	Chemistry - Junior (6th Grade)	Stretch It
Kelsey Kovalsky	8	MCH133	Chemistry - Intermediate (7th-8th grade)	Which Sunscreen Works the Best?
Klay Kraeuter	7	MCM103	Computer Science / Math - Intermediate (7th-8th grade)	Block the Route
Nicholas Kusumo	8	MCH134	Chemistry - Intermediate (7th-8th grade)	Immiscible?
Jessica Le	6	JB1116	Biological Sciences - Junior (6th Grade)	Plant Growth
Rylee Miller	8	MCS126	Consumer Science - Intermediate (7th-8th grade)	Bright Smiles
Alayna Pedrotty	6	JBC111	Behavioral & Consumer Sciences - Junior (6th Grade)	Light It Up!
Brenna Salzmann	8	MCH157	Chemistry - Intermediate (7th-8th grade)	Flower Power
Steven Salzmann	6	JBC116	Behavioral & Consumer Sciences - Junior (6th Grade)	What's Poppin'
Alayna Scherer	6	JCH124	Chemistry - Junior (6th Grade)	Bouncy Ball Height
Angeles Vega	6	JPE303	Physical Sciences & Engineering - Junior (6th Grade)	Candy Flow
Brooklyn Wilcox	6	JPE303	Physical Sciences & Engineering - Junior (6th Grade)	Candy Flow
Madison Wilcox	7	MCH170	Chemistry - Intermediate (7th-8th grade)	Stretch It

## Registered Participants by School

### St. Bernadette School

Student	Grade	Project #	Project Category	Project Title
Salvatore Banks	8	MBI105	Biology - Intermediate (7th-8th grade)	What snack would my Caique prefer?
Juliette Barth	6	JB1103	Biological Sciences - Junior (6th Grade)	Glucose Level Variation According to Time of Day
Brandon Bell	7	MCH104	Chemistry - Intermediate (7th-8th grade)	Does Particle Size Affect Reaction Time?
Cherokee Billings	7	MCH106	Chemistry - Intermediate (7th-8th grade)	What solution makes gummy bears expand?
Joel Blake	7	MCH107	Chemistry - Intermediate (7th-8th grade)	What makes Pennies Corrode?
Vivian Bui	7	MCH301	Chemistry - Intermediate (7th-8th grade)	Will Different Ratios affect outcome of bath bombs
Carmela Capasso	7	MCH108	Chemistry - Intermediate (7th-8th grade)	Making a Chemical Reaction
Heath Chase	8	MES100	Earth / Space / Environment - Intermediate (7th-8th grade)	SOUNDPROOFING: Which Recycled Material Works Best: Plastic bottles or Plastic bags
Jayla Chase	6	JCH104	Chemistry - Junior (6th Grade)	Which Lip Balm Recipe Has the Best Overall Performance
Nick Cooley	7	MMH105	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	The Five Second Rule
Lotus DeChellis	7	MBI112	Biology - Intermediate (7th-8th grade)	Which is smarter: mixed breed dogs or pure breed?
Michelina Estremera	6	JCH108	Chemistry - Junior (6th Grade)	Desiccants Mummifying Hot Dogs
Brendan Ferri	7	MPH113	Physics - Intermediate (7th-8th grade)	BASEBALL: Which is Better, Wood or Aluminum?
Nicolas Fuller	7	MCH123	Chemistry - Intermediate (7th-8th grade)	What is the best drinking water?
Ashley German	6	JB1109	Biological Sciences - Junior (6th Grade)	Which Solution Makes Pea Plants Grow the Best?
Cameron German	7	MCH125	Chemistry - Intermediate (7th-8th grade)	Are You Drinking Acid?
James Giannetta	7	MBI117	Biology - Intermediate (7th-8th grade)	Does Aspirin Help Plants Grow?
Hannah Gresock	7	MBI118	Biology - Intermediate (7th-8th grade)	Plant growth
Erin Gurtner	7	MCH126	Chemistry - Intermediate (7th-8th grade)	What is the Best Skin Moisturizer?
McKenna Heller	7	MBI119	Biology - Intermediate (7th-8th grade)	Testing Different Liquids for Flower Lifespan
Madison Iacoboni	7	MES107	Earth / Space / Environment - Intermediate (7th-8th grade)	Why do we lose our balance?
Baley Irwin	7	MES109	Earth / Space / Environment - Intermediate (7th-8th grade)	What Makes Ice Melt the Fastest?
Jet Johnston	7	MPH120	Physics - Intermediate (7th-8th grade)	Does the Infinity Mirror Work?
Clinton Kellick	7	MCS119	Consumer Science - Intermediate (7th-8th grade)	What is the Most Neutral Water?
Noah Kessler	8	MPH123	Physics - Intermediate (7th-8th grade)	Hockey Stick Flex: Does it matter?
Madison Long	8	MBI125	Biology - Intermediate (7th-8th grade)	How Different Pollutants Affect Marine Life
Caroline Malandra	7	MCH301	Chemistry - Intermediate (7th-8th grade)	Will Different Ratios affect outcome of bath bombs
Mia Maurizio	6	JCH114	Chemistry - Junior (6th Grade)	Which Fabric Makes the Brightest, Boldest Tie- Dye?
Christian McDowell	8	MCS125	Consumer Science - Intermediate (7th-8th grade)	Protecting Your Smile
Megan McFetridge	8	MBS124	Behavioral & Social Science - Intermediate (7th-8th grade)	Do People Respond Differently Based on Clothes?



## Registered Participants by School

### St. Bernadette School

Student	Grade	Project #	Project Category	Project Title
Gabriella Morgano	6	JPE114	Physical Sciences & Engineering - Junior (6th Grade)	How Much Electrical Energy Can the Motor Produce?
Jacob Nelson	7	MBS128	Behavioral & Social Science - Intermediate (7th-8th grade)	Can you detect lies without a machine?
Lourdes Obeng	8	MCS127	Consumer Science - Intermediate (7th-8th grade)	How do different saturated fats affect the body?
Kyera O'Brien	8	MBI303	Biology - Intermediate (7th-8th grade)	Does Wi-fi Radiation Affect Plant Growth?
Kira Pavlik	8	MCS129	Consumer Science - Intermediate (7th-8th grade)	How much bacteria is in your makeup?
Sarah Penrod	7	MMH118	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Testing Bloodtype Reactions to Antibodies
Jordan Rutter	7	MCS137	Consumer Science - Intermediate (7th-8th grade)	Which Orange Juice has the Most Acid?
Ishan Sinha	6	JPE122	Physical Sciences & Engineering - Junior (6th Grade)	Strength of Magnets
Paul Stalnaker	7	MBI141	Biology - Intermediate (7th-8th grade)	How Carbon Dioxide and Food Affects Water
Caleb Stark	7	MER139	Engineering / Robotics - Intermediate (7th-8th grade)	How much weight can a foil boat hold?
Taylor Stephans	6	JBC117	Behavioral & Consumer Sciences - Junior (6th Grade)	Which Brand of Nail Polish Stays on the Longest?
Christine Ursiny	7	MCS143	Consumer Science - Intermediate (7th-8th grade)	What permanent marker brand is the most permanent?
Lydia Valentine	8	MCH165	Chemistry - Intermediate (7th-8th grade)	Identifying DNA
Nico Vovaris	6	JPE130	Physical Sciences & Engineering - Junior (6th Grade)	Battery vs. Temperature
Rebecca Whealdon	8	MBI303	Biology - Intermediate (7th-8th grade)	Does Wi-fi Radiation Affect Plant Growth?
Jacob Wood	7	MPH150	Physics - Intermediate (7th-8th grade)	Does Size Matter?
Hannah Yorio	8	MCH173	Chemistry - Intermediate (7th-8th grade)	Do Synthetic Preservative Make a Difference
Zackery Zigarovich	7	MPH153	Physics - Intermediate (7th-8th grade)	Which bridge holds the most weight?

## Registered Participants by School

### St. Bernard Regional Catholic School

Student	Grade	Project #	Project Category	Project Title
Emily Bennett	7	MCS103	Consumer Science - Intermediate (7th-8th grade)	Preservatives - Good or Bad
Derek Fairman	6	JBC103	Behavioral & Consumer Sciences - Junior (6th Grade)	Anole Feast
Daniel Gornick	7	MER114	Engineering / Robotics - Intermediate (7th-8th grade)	Water Energy
Isaac Marshall	7	MCS122	Consumer Science - Intermediate (7th-8th grade)	Sour Power
Rhyan McCracken	7	MCS124	Consumer Science - Intermediate (7th-8th grade)	Testing Lactose
Alexander Tebbs	7	MCH163	Chemistry - Intermediate (7th-8th grade)	The Great Germ War

## Registered Participants by School

### St. Elizabeth Elementary School

Student	Grade	Project #	Project Category	Project Title
John Paul Andreola	6	JPE100	Physical Sciences & Engineering - Junior (6th Grade)	Mentos in Soda
Evan Armstrong	6	JCH101	Chemistry - Junior (6th Grade)	Efficacy of Various Solutions in Cleaning Pennies
Luke Brennfleck	7	MER103	Engineering / Robotics - Intermediate (7th-8th grade)	The Durability Factors
Ryan Concannon	6	JCH105	Chemistry - Junior (6th Grade)	Teeth Staining Project
Eva Lavrinc	7	MBS119	Behavioral & Social Science - Intermediate (7th-8th grade)	Do You Hear What I Hear?
Alex Liebmann	6	JPE110	Physical Sciences & Engineering - Junior (6th Grade)	Water and Ice Erode Rock
Megan Lyons	8	MMH116	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	How Dirty is Your School?
Klaudia Muha	7	MBS126	Behavioral & Social Science - Intermediate (7th-8th grade)	Is False Memory False?
Haley Nagel	8	MBS127	Behavioral & Social Science - Intermediate (7th-8th grade)	Blue vs Multicolor
Jayla Olson	6	JBI123	Biological Sciences - Junior (6th Grade)	Can Classical Music Calm Caged Dogs
Bridget Perko	8	MBS135	Behavioral & Social Science - Intermediate (7th-8th grade)	Can You Read This?
Olivia Pollice	8	MMH119	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	BAP:A Cure for Diabetes
Paige Prusak	8	MBI133	Biology - Intermediate (7th-8th grade)	What is your dog's Favorite Color?
Claire Saltzman	8	MBS141	Behavioral & Social Science - Intermediate (7th-8th grade)	Is Multitasking Worth It?
Drew Schliebner	7	MER135	Engineering / Robotics - Intermediate (7th-8th grade)	Levitation!
Ava Territ	7	MBS146	Behavioral & Social Science - Intermediate (7th-8th grade)	Crossword puzzles vs Catchy Songs
Francesca Veltri	6	JCH126	Chemistry - Junior (6th Grade)	Which Antacid Works Best?
Gina Veltri	8	MBS148	Behavioral & Social Science - Intermediate (7th-8th grade)	Subliminal Messages
Jacob Wincko	7	MER147	Engineering / Robotics - Intermediate (7th-8th grade)	Do Cell Phones Emit radiation?
Benjamin Wingerter	6	JPE131	Physical Sciences & Engineering - Junior (6th Grade)	Aluminum Air Battery

## Registered Participants by School

### St. John Paul II Homeschool CO-OP

Student	Grade	Project #	Project Category	Project Title
Joseph Anand	10	SCH102	Chemistry - Senior (9th-12th grade)	Antioxidant Potency
Regina Anand	8	MCS100	Consumer Science - Intermediate (7th-8th grade)	Lights On!
Thomas Anand	10	SPH100	Physics - Senior (9th-12th grade)	Hooked!
Charles Hickenboth, IV	7	MER117	Engineering / Robotics - Intermediate (7th-8th grade)	Variables Affecting Solar Water Still Output
Helen Kish	10	SCM115	Computer Science / Math - Senior (9th-12th grade)	Predicting Disaster Effects Using Algorithms
Theresa Kish	7	MES111	Earth / Space / Environment - Intermediate (7th-8th grade)	Sinkhole Detection Using Ultrasound

## Registered Participants by School

### St. Joseph High School

Student	Grade	Project #	Project Category	Project Title
Spencer Brackett	9	SMH104	Medicine / Health / Microbiology - Senior (9th-12th grade)	Treatment of Tumor Hypoxia
Keavy Callwood	9	SCH105	Chemistry - Senior (9th-12th grade)	What is the amount of decline of chlorophyll in Fall leaves?
Samantha Dennis	11	SMH111	Medicine / Health / Microbiology - Senior (9th-12th grade)	Mucilage Filtration of Water
Kelsey DuVall	9	SES110	Earth / Space / Environment - Senior (9th-12th grade)	Is Panax Ginseng a Repellent?
Skylar Geibel	10	SBI119	Biology - Senior (9th-12th grade)	Drug Effects on Danio rerio
Leah Grady	11	SBI120	Biology - Senior (9th-12th grade)	Not So Sterile Salt
Hannah Kipp	9	SBI126	Biology - Senior (9th-12th grade)	FDo Humans Indirectly Affect the Growth of Algae?
Michael Konopski	9	SES128	Earth / Space / Environment - Senior (9th-12th grade)	Decomposition of Plastics
Sean LeMay	9	SPH117	Physics - Senior (9th-12th grade)	The Best Asphalt for Western PA
Robert Lipnichan	9	SCM119	Computer Science / Math - Senior (9th-12th grade)	The Mathematical Principles Underlying Origami
Diesel Losch	9	SCH122	Chemistry - Senior (9th-12th grade)	Metal Matters
Madelyn Neelan	9	SBI143	Biology - Senior (9th-12th grade)	Will Iron(III) Oxide Kill Japanese Knotweed?
Andy Nguyen	9	SES136	Earth / Space / Environment - Senior (9th-12th grade)	Neutralizing Malathion Pesticide
Brody Porter	9	SCH130	Chemistry - Senior (9th-12th grade)	Heat and Peanut Oil Proteins
Ethan Scroeder	10	SBI154	Biology - Senior (9th-12th grade)	Electromagnetic Fields and Bacterial Mosquito Control
Paul Shadle	9	SBI155	Biology - Senior (9th-12th grade)	Ideal Boron for Lactuca sativa
Julia Singleton	11	SBI158	Biology - Senior (9th-12th grade)	Essential Oils and Penicillin on Staphylococcus epidermidis
Samantha Skeba	9	SBI159	Biology - Senior (9th-12th grade)	How Companion Planting Affects the Growth Rate of Lettuce
Zachary Szep	9	SBI165	Biology - Senior (9th-12th grade)	Effects of Different Foods on Daphnia Reproduction
Andrew VanFossen	9	SER132	Engineering / Robotics - Senior (9th-12th grade)	Internal Injury Prevention

## Registered Participants by School

### St. Kilian Parish School

Student	Grade	Project #	Project Category	Project Title
Molly Burke	6	JBI301	Biological Sciences - Junior (6th Grade)	Your Immune System's Memory
Alexandra Gongas	6	JBC300	Behavioral & Consumer Sciences - Junior (6th Grade)	Which Mint Dissolves the Fastest?
Alaina Hicks	8	MBS116	Behavioral & Social Science - Intermediate (7th-8th grade)	Do fidget spinner actually help you focus?
John Hufnagel	7	MMH111	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Watch Out for Those Drinks!
Justin Kontul	6	JBI115	Biological Sciences - Junior (6th Grade)	Agriculture vs. Aquaponics
Keira Krebs	6	JBI301	Biological Sciences - Junior (6th Grade)	Your Immune System's Memory
Kate Lipscomb	8	MER123	Engineering / Robotics - Intermediate (7th-8th grade)	Can You Bear the Suspense?
Meredith Martin	6	JBC300	Behavioral & Consumer Sciences - Junior (6th Grade)	Which Mint Dissolves the Fastest?
Lucy Miller	6	JCH300	Chemistry - Junior (6th Grade)	Pop Pop Fizz Fizz Quiz
John O'Toole	7	MBI129	Biology - Intermediate (7th-8th grade)	Is Preen Really that Green? Part Two: The Effects of Pre-Emergent Herbicides on Seed Quality
Gabe Primrose	7	MCS134	Consumer Science - Intermediate (7th-8th grade)	What's in your Water?
Anna Spalvieri	8	MBS145	Behavioral & Social Science - Intermediate (7th-8th grade)	Eye See it Differently
Anthony Spalvieri	7	MMH125	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Going for Speed
Grace Windfelder	6	JCH300	Chemistry - Junior (6th Grade)	Pop Pop Fizz Fizz Quiz

## Registered Participants by School

### St. Raphael School

Student	Grade	Project #	Project Category	Project Title
Grace DiGiacomo	7	MMH106	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Which brand of Ibuprofen dissolves the fastest?
Sophia LoPresti	6	JBC110	Behavioral & Consumer Sciences - Junior (6th Grade)	Birdy Buffet
Gloria Mancilla	8	MBS122	Behavioral & Social Science - Intermediate (7th-8th grade)	Calling All Horses: Foals' Aural Recognition of Father's Vocalization
Haylee O'Hara	7	MBS130	Behavioral & Social Science - Intermediate (7th-8th grade)	What colored paper impacts your reading?
Leeann Parsi	8	MCH153	Chemistry - Intermediate (7th-8th grade)	Permeation Denied!
Matthew Parsi	7	MCH154	Chemistry - Intermediate (7th-8th grade)	pH Effects on Copper Corrosion

## Registered Participants by School

### St. Thomas More School

Student	Grade	Project #	Project Category	Project Title
Zac Bublak	8	MBI110	Biology - Intermediate (7th-8th grade)	How Does Color Contrast Affect Visual Acuity?
Cade Clister	7	MPH109	Physics - Intermediate (7th-8th grade)	Does Weight Affect a Drone's Battery Life?
Kyla Cohagan	7	MCH109	Chemistry - Intermediate (7th-8th grade)	Which Sunglass Lenses Provide the Best Protection from UV Rays?
Ethena Conzemius	8	MCH110	Chemistry - Intermediate (7th-8th grade)	The Effect of Antacids on the Neutralization of HCl
Antonio Cordeiro	7	MES101	Earth / Space / Environment - Intermediate (7th-8th grade)	Testing Ozone Levels
Emma Dziezgowski	8	MCH117	Chemistry - Intermediate (7th-8th grade)	Which Beverage Has the Most Electrolytes?
Maura Farmerie	7	MBS111	Behavioral & Social Science - Intermediate (7th-8th grade)	The Effect of Gender on Visual Selective Attention
Kathleen Farnan	8	MCS113	Consumer Science - Intermediate (7th-8th grade)	What Is the Best Method Residents Can Use to Purify Water After a Natural Disaster?
Anabel Franzmann	8	MCS115	Consumer Science - Intermediate (7th-8th grade)	Which Common Drink Stains Teeth the Fastest?
Mia Gerber	7	MBI115	Biology - Intermediate (7th-8th grade)	How Does Fracking Affect Plant Growth?
Elizabeth Kowenhoven	7	MES112	Earth / Space / Environment - Intermediate (7th-8th grade)	Determining How Fast the Sun Rotates by Observing Sunspots
Anna Levis	8	MCH138	Chemistry - Intermediate (7th-8th grade)	Which Sunscreen Is Best at Blocking UV Rays?
Annaliese Mertz	7	MPH132	Physics - Intermediate (7th-8th grade)	Does Temperature Affect the Energy Output of Solar Cells?
Olivia Pretto	7	MCS133	Consumer Science - Intermediate (7th-8th grade)	Protecting Ungalvanized Nails
Dani Prunzik	7	MER132	Engineering / Robotics - Intermediate (7th-8th grade)	Which Building Design Will Best Withstand An Earthquake?
Athena Quinlan	8	MMH120	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	How Much Radiation Does Your Cell Phone Emit?
Elizabeth Ripley	7	MBS138	Behavioral & Social Science - Intermediate (7th-8th grade)	The Effect of Color Printing on Proofreading
Patrick Weldon	8	MCS144	Consumer Science - Intermediate (7th-8th grade)	Which Fabric Most Effectively Blocks Out UV Light?
Caroline Zini	7	MCS146	Consumer Science - Intermediate (7th-8th grade)	Homemade Sunscreen vs. Various Types of Store-Bought Sunscreen



## Registered Participants by School

### Strub Homeschool

Student	Grade	Project #	Project Category	Project Title
Teresa Strub	11	SER130	Engineering / Robotics - Senior (9th-12th grade)	Acorns Take Root in the Economy

## Registered Participants by School

### The Campus School of Carlow University

Student	Grade	Project #	Project Category	Project Title
Mina Andrews	8	MBI101	Biology - Intermediate (7th-8th grade)	Artificial Light Helping Plants Grow
Federica Auteri	8	MER100	Engineering / Robotics - Intermediate (7th-8th grade)	Optimal Design of Paper Glider
Ariana Barsotti	8	MCS102	Consumer Science - Intermediate (7th-8th grade)	Best Material for Winter Gloves?
Eleanor Barth-Wu	8	MCH102	Chemistry - Intermediate (7th-8th grade)	Indium Extraction from iPhones
Joey Evans	7	MPH112	Physics - Intermediate (7th-8th grade)	Roller Coaster Marbles
Charlie Hannon	6	JCH110	Chemistry - Junior (6th Grade)	Dirt on Dirt: Looking for Lead
Liam Kiernan	8	MER120	Engineering / Robotics - Intermediate (7th-8th grade)	Most Elastic Common 3D Print Material
Garett Mann	8	MER125	Engineering / Robotics - Intermediate (7th-8th grade)	Solar...Now in Color
Anastasia Piacentini	6	JB1126	Biological Sciences - Junior (6th Grade)	Growing with Light
Ricky Piacentini	6	JPE117	Physical Sciences & Engineering - Junior (6th Grade)	The Simplest Electric Train
Mackenna Roberts	8	MBS139	Behavioral & Social Science - Intermediate (7th-8th grade)	Inspiration and Art Appreciation
Aidan Rockovich	6	JBC115	Behavioral & Consumer Sciences - Junior (6th Grade)	Stain Repellent?
Brian Salipante	8	MER134	Engineering / Robotics - Intermediate (7th-8th grade)	Angles and Stress on the Knee
Carlos Snyder	8	MCH160	Chemistry - Intermediate (7th-8th grade)	Color Absorbing Heat from Sunlight
Joe Stern	8	MER140	Engineering / Robotics - Intermediate (7th-8th grade)	Optimal Wind Turbine Design
Julia Stern	8	MCH162	Chemistry - Intermediate (7th-8th grade)	Effect of pH on Lactase
Warren Tamarree	8	MCS140	Consumer Science - Intermediate (7th-8th grade)	Most Effective Brand of Waterproofer
Margaret Valentine	6	JPE129	Physical Sciences & Engineering - Junior (6th Grade)	Tricky Faces
Alexandria Westray	8	MBI146	Biology - Intermediate (7th-8th grade)	Can Smartphones Change Temp. of CSF?
Jaylee Witcher	7	MCS145	Consumer Science - Intermediate (7th-8th grade)	Egg-celent Teeth Whitening

## Registered Participants by School

### The Ellis School

Student	Grade	Project #	Project Category	Project Title
Shivani Watson	8	MCH168	Chemistry - Intermediate (7th-8th grade)	Producing Biofuel from Prickly Pear Cacti

## Registered Participants by School

### Upper St. Clair High School

Student	Grade	Project #	Project Category	Project Title
Samuel Ding	11	SMH113	Medicine / Health / Microbiology - Senior (9th-12th grade)	Data Analysis of Breast Cancer
Shanthi Krishnaswamy	10	SES129	Earth / Space / Environment - Senior (9th-12th grade)	Effect of Enzymes on Plants
Ishaan Shah	9	SES145	Earth / Space / Environment - Senior (9th-12th grade)	Maximizing Output of a Microbial Fuel Cell

## Registered Participants by School

### Vincentian Academy

Student	Grade	Project #	Project Category	Project Title
Rory Cooke	9	SPH103	Physics - Senior (9th-12th grade)	Electric Coil Motor
David Kelly	9	SCH119	Chemistry - Senior (9th-12th grade)	Using Kinetic Sand and Vegetables to Determine Hydrophobic and Hydrophilic Substances
Ik-Hyun Kim	12	SMH127	Medicine / Health / Microbiology - Senior (9th-12th grade)	Gene Methylation is a Driver of Cellular Differentiation for Intrinsic Subtype of Breast Cancer during Carcinogenesis
Laurie (Aeone) Song	11	SES147	Earth / Space / Environment - Senior (9th-12th grade)	Air Quality and Cancer Mortality Rates: Comparison of regional trends across counties

## Registered Participants by School

### Westmont Hilltop Elementary

Student	Grade	Project #	Project Category	Project Title
Gayath Karunaratne	6	JBC107	Behavioral & Consumer Sciences - Junior (6th Grade)	How long fire retardants last in clothes?

## Registered Participants by School

### Winchester Thurston School

Student	Grade	Project #	Project Category	Project Title
Kush Bandi	8	MER300	Engineering / Robotics - Intermediate (7th-8th grade)	Harvester Robot
Ria Bazaz	12	SES300a	Earth / Space / Environment - Senior (9th-12th grade)	Electrolysis & 3D printing for Coral Reefs
Aria Eppinger	9	SMH117	Medicine / Health / Microbiology - Senior (9th-12th grade)	Effects of Repeated Roundup Exposure on Antibiotic Resistance in Human Gut Bacteria
JohnIrv Hollingshead	8	MMH300	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Parkinsons Key Assist
Najee Jackson	8	MMH300	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Parkinsons Key Assist
Jonah Keller	8	MER303	Engineering / Robotics - Intermediate (7th-8th grade)	Two Track Roller Coaster
Aria Narasimhan	7	MMH117	Medicine / Health / Microbiology - Intermediate (7th-8th grade)	Carpal Tunnel Syndrome
Nicole Shigiltchoff	9	SMH147	Medicine / Health / Microbiology - Senior (9th-12th grade)	Diffusion Through Biogels
Matthew Shlomchik	8	MER303	Engineering / Robotics - Intermediate (7th-8th grade)	Two Track Roller Coaster
Elizabeth Stenson	9	SES149	Earth / Space / Environment - Senior (9th-12th grade)	Accessible Drinking Water
Luka van de Venne	12	SES300b	Earth / Space / Environment - Senior (9th-12th grade)	Electrolysis & 3D printing for Coral Reefs
Jackson Zemek	8	MER300	Engineering / Robotics - Intermediate (7th-8th grade)	Harvester Robot

## Registered Participants by School

### Woodland Hills Jr. Sr. High School

Student	Grade	Project #	Project Category	Project Title
Madeline Douglas	8	MCS110	Consumer Science - Intermediate (7th-8th grade)	Lather Up
Sasha Erbedinger	9	SMH118	Medicine / Health / Microbiology - Senior (9th-12th grade)	What Acne Medication Works Best?
Khaleah Jackson	10	SES124	Earth / Space / Environment - Senior (9th-12th grade)	Can Magnetism Aid in Electrolysis?



## Registered Participants by School

### Yough Intermediate/Middle

Student	Grade	Project #	Project Category	Project Title
Lillian Momyer	6	JBI119	Biological Sciences - Junior (6th Grade)	Trash To Gas
Emily Stephan	7	MES126	Earth / Space / Environment - Intermediate (7th-8th grade)	Sound Waves in Space
Bailey Trent	7	MCS142	Consumer Science - Intermediate (7th-8th grade)	Dirty Lies
Savannah Wilhelm	7	MBI148	Biology - Intermediate (7th-8th grade)	How carbon affects grass

## Registered Participants by School

### Yough Sr. High School

Student	Grade	Project #	Project Category	Project Title
Peyton Aujay	10	SBS100	Behavioral & Social Science - Senior (9th-12th grade)	Is Green Really That Lucky?
Taylor Etze	10	SCH111	Chemistry - Senior (9th-12th grade)	Produce Power; A "Current" Event