

## 2017 Intel NWSE Middle School Awards

Press Release

Monday May 1, 2017 at Portland State University the Intel Northwest Science Expo for Middle School students awarded three young ladies Best of Fair. Vicky Siah from Summa Stoller for her project titled "Creating an Effective Water Filter With Ocimum Basilicum" and Rabha Reda and Nura Salah from the Islamic School of Portland for their project titled "To Vape or Not to Vape". These awards were sponsored by Catalyst Education and Career Pathways and included a plaque for each student and \$100 for each project. There were 343 registered projects from 50 different organizations.

### Special Awards

Special Award	Award Sponsor	Title	Student List	Organization	Adult Sponsor
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	The Global Effect of Global Climate Oscillation	Maria Kolatukudy	Summa Meadow	Susan Duncan
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Bridlemile's Carbon Footprint and How We Could Lower It	Rose Kwiecien-Roick	Bridlemile Elementary School	Larry Sherman
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Observing Light at Night: How Light Pollution Affects Star Visibility	Nabila Maazouz	Oregon Islamic Academy	Susan Eslami
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Air Quality and Air Particles	Rithi Kumar	Class Academy	Jaime Mitchell
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Where To Breathe	Emma Christensen, Amy Browning	Meadow Park Middle School	Anne McHugh
Outstanding Research in Psychology	American Psychological Association	Get Happy: A Study About Mood	Evelyn McAulay	Bridlemile Elementary School	Larry Sherman
Outstanding Research in Psychology	American Psychological Association	MAYBE WE'RE BORN WITH IS, MAYBE IT'S RACISM	Sumayah Abdirahman	Islamic School of Portland	Nura Elmagbari

Outstanding Research in Psychology	American Psychological Association	Mind Flex	Molly Ruff	Athey Creek Middle School	Stephen Walsh
Outstanding Research in Psychology	American Psychological Association	Dominant "Sweet Spot"	Kady Cluff	Heritage Middle School	Karl Topping
Outstanding Geoscience Project	Association Of Women Geoscientists	The Global Effect of Global Climate Oscillation	Maria Kolatukudy	Summa Meadow	Susan Duncan
Outstanding Geoscience Project	Association Of Women Geoscientists	Which buildings in Portland are prepared for an earthquake?	Annabelle Ancheta	Summa Cedar	Winter Chung
Outstanding Geoscience Project	Association Of Women Geoscientists	How does mass affect the speed of Coronal Mass Ejections (CMEs)?	Rose Lawrence	Summa Cedar	Winter Chung
IEEE Special Awards	IEEE Oregon	Garage Generator	Eamon Whitten	Bridlemile Elementary School	Larry Sherman
IEEE Special Awards	IEEE Oregon	3D Printed Robotic Hand	Alex Fryer	Summa Whitford	Carolee Dearborn
IEEE Special Awards	IEEE Oregon	Can computer fonts replace your handwriting?	Sethu Eapen	Summa Cedar	Winter Chung
IEEE Special Awards	IEEE Oregon	Combining Solar and Wind Power for Efficiency	Rishabh Sharma	Summa Stoller	Pam Svenson
IEEE Special Awards	IEEE Oregon	Smart Floor	Viti Eachambadi	Summa Stoller	Pam Svenson
IEEE Special Awards	IEEE Oregon	Arach-NO-Phobia	Mihir Joshi	Howard Street Charter School	Rashmi Joshi
IEEE Special Awards	IEEE Oregon	The creation and use of artificial neural networks	Jalen Chrysos	Meadow Park Middle School	Anne McHugh
IEEE Special Awards	IEEE Oregon	Reducing Roadkill: A project on Wildlife Mitigation	Alan Ma	Stoller Middle School	Pamela Svenson

IEEE Special Awards	IEEE Oregon	A Milli-Watt Energy-Harvesting Light Bulb Based On Thermo-electric Generation	Pratik Vangal	Stoller Middle School	Pamela Svenson
Outstanding Aquatic Related Environmental Science Project	Lake Oswego Corporation	The effect of increasing water temperature affect Daphnia Magna	Nava Weingrad	Robert Gray Middle School	David Wages
Mu Alpha Theta Award	Mu Alpha Theta	Square Retaining Numbers	Alan Kappler	Carden Cascade Academy	Elizabeth Kappler
Mu Alpha Theta Award	Mu Alpha Theta	Derivatives and the Power Rule	Sadie Cook	Yamhill Carlton School District	Lisa Jacobs
Mu Alpha Theta Award	Mu Alpha Theta	Properties of Julia Sets	Osian Leahy	Yamhill Carlton School District	Lisa Jacobs
NASA Earth System Science Award	NASA	Preserving Urban Biodiversity: By Using Plants	Ellie Stephens	Summa Meadow	Susan Duncan
NASA Earth System Science Award	NASA	Air Pollution Plant Solution	Harper Smith	Bend Science Station	Danny Martin
NASA Earth System Science Award	NASA	How does mass affect the speed of Coronal Mass Ejections (CMEs)?	Rose Lawrence	Summa Cedar	Winter Chung
NASA Earth System Science Award	NASA	DETECTING SOIL POLLUTION NEAR GAS STATIONS	Riham Mohamed	Islamic School of Portland	Nura Elmagbari

Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	Remote Sensing the Ablation or Accumulation Stages of a Glacier by Using Fractal Analysis on Glacier Images	Mithra Karamchedu	Summa Stoller	Pam Svenson
Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	Combining Solar and Wind Power for Efficiency	Rishabh Sharma	Summa Stoller	Pam Svenson
Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	Tsunami Prevention Project	Jenna Eckart	Athey Creek Middle School	Stephen Walsh
Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	faster methane emissions as a consequence of higher wetland surface temperatures	Eric Xia	Athey Creek Middle School	Stephen Walsh
Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	Is There a Direct Correlation Between Climate Change and the Amount of Precipitation a Ski Resort Receives Per Year?	Abby Mankin	Lake Oswego Junior High	Joe Godfrey
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	eyeRemote	Finn Rutis	Summa Whitford	Carolee Dearborn
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Optimizing Collagen Fiber Ligament Repair Through Flexible Tensile Apparatus	Anya Bohra	Summa Stoller	Pam Svenson
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	The most effective heat sink design for a modified thermometric generator	Jonathan Tence	Athey Creek Middle School	Stephen Walsh

Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	What Shape For A Train Is The Most Aerodynamic	Hayden Wierman	Athey Creek Middle School	Stephen Walsh
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Sugar Rockets	James Davis	Sherwood Charter School	Shannon Peterka
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Can we predict the amount of energy a wind farm will produce?	Baasil Pasha	Highland Park Summa Program	Sarah Watterson
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	A Milli-Watt Energy-Harvesting Light Bulb Based On Thermo-electric Generation	Pratik Vangal	Stoller Middle School	Pamela Svenson
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Walking Stick Snack: Do Plant pH Levels Affect Walking Stick Eating Habits	Kent Koehler	Bend Science Station	Danny Martin
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Irish Dance Shoe Fiberglass Patterns	Ruby Sparks	Bend Science Station	Danny Martin
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Changing Waters: Ocean acidification's impact on oyster larvae pathogen <i>Vibrio coralliilyticus</i>	Teaghan Knox	Bend Science Station	Danny Martin
Outstanding Natural Resources Science Project	Pacific NW Research Station, USDA Forest Service	Dendrochronology as an Indicator of Climate Change	Zoe Heino	Summa Whitford	Carolee Dearborn

Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	The Quality of Our Water	Simon Walsh	Bridlemile Elementary School	Larry Sherman
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	DETECTING SOIL POLLUTION NEAR GAS STATIONS	Riham Mohamed	Islamic School of Portland	Nura Elmagbari
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	Air Quality and Air Particles	Rithi Kumar	Class Academy	Jaime Mitchell
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	Bath Bomb 101	Audrey Gauthier	St. Francis School	Alison Green
Ricoh Sustainable Development Award	Ricoh Corporation	Developing a better formula for calculating home energy efficiency	Sarah Larson	Summa Cedar	Winter Chung
Ricoh Sustainable Development Award	Ricoh Corporation	Combining Solar and Wind Power for Efficiency	Rishabh Sharma	Summa Stoller	Pam Svenson
Ricoh Sustainable Development Award	Ricoh Corporation	Green Cell	Dev Udata	Valley Catholic Middle School	Sarah Zinzer
Ricoh Sustainable Development Award	Ricoh Corporation	THE WASTE-LESS THERMABIN	Maya Ghamrawi, Naviya Venkitesh	Valley Catholic Middle School	Sarah Zinzer
Broadcom MASTERS nomination	Society for Science and the Public	Sweat-Induced Corrosion	Amanda Vasconcellos	Rachel Carson Environmental Middle School	Rebecca Hall
Broadcom MASTERS nomination	Society for Science and the Public	Square Retaining Numbers	Alan Kappler	Carden Cascade Academy	Elizabeth Kappler

Broadcom MASTERS nomination	Society for Science and the Public	The Application of the Golden Ratio to Food Proportions and How It Impacts Visual Appeal to Humans	Aidan Sheeran-Hahnel	ACCESS Academy	Alfonso Garcia Arriola
Broadcom MASTERS nomination	Society for Science and the Public	An Examination of Nucleation through Video Analysis	Lucas Braun	Summa Whitford	Carolee Dearborn
Broadcom MASTERS nomination	Society for Science and the Public	eyeRemote	Finn Rutis	Summa Whitford	Carolee Dearborn
Broadcom MASTERS nomination	Society for Science and the Public	Brine Shrimp in Different Salinities	Zoe Pruitt, Ave Gray	Summa Whitford	Carolee Dearborn
Broadcom MASTERS nomination	Society for Science and the Public	Refraction Action	Jacob Zhao	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Walking Stick Snack: Do Plant pH Levels Affect Walking Stick Eating Habits	Kent Koehler	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Fantastic Frequencies and Wonderful Webs	Leila Slate	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Air Pollution Plant Solution	Harper Smith	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Irish Dance Shoe Fiberglass Patterns	Ruby Sparks	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Changing Waters: Ocean acidification's impact on oyster larvae pathogen <i>Vibrio coralliilyticus</i>	Teaghan Knox	Bend Science Station	Danny Martin
Broadcom MASTERS nomination	Society for Science and the Public	Structural Stability of Hydropower Buildings	Reyna Ayala	Summa Cedar	Winter Chung

Broadcom MASTERS nomination	Society for Science and the Public	Which buildings in Portland are prepared for an earthquake?	Annabelle Ancheta	Summa Cedar	Winter Chung
Broadcom MASTERS nomination	Society for Science and the Public	How Anchoring Affects Implicit Gender Bias in Adolescents	Kira Dobbins	Robert Gray Middle School	David Wages
Broadcom MASTERS nomination	Society for Science and the Public	Effectiveness of Concussion Bands	Ani Posner	Robert Gray Middle School	David Wages
Broadcom MASTERS nomination	Society for Science and the Public	Students' affect on Classroom Carbon Dioxide (CO2) Levels	Ari Matzka	Silverton Middle School	Daniel Jamsa
Broadcom MASTERS nomination	Society for Science and the Public	Smart Floor	Viti Eachambadi	Summa Stoller	Pam Svenson
Broadcom MASTERS nomination	Society for Science and the Public	Remote Sensing the Ablation or Accumulation Stages of a Glacier by Using Fractal Analysis on Glacier Images	Mithra Karamchedu	Summa Stoller	Pam Svenson
Broadcom MASTERS nomination	Society for Science and the Public	Creating an Effective Water Filter With Ocimum Basilicum	Vicky Siah	Summa Stoller	Pam Svenson
Broadcom MASTERS nomination	Society for Science and the Public	Optimizing Collagen Fiber Ligament Repair Through Flexible Tensile Apparatus	Anya Bohra	Summa Stoller	Pam Svenson
Broadcom MASTERS nomination	Society for Science and the Public	Creating a Novel and Affordable Filter to Remove Lead, Mercury, and Cadmium from Water	Eshani Jha	Summa Stoller	Pam Svenson
Broadcom MASTERS nomination	Society for Science and the Public	Combining Solar and Wind Power for Efficiency	Rishabh Sharma	Summa Stoller	Pam Svenson



Broadcom MASTERS nomination	Society for Science and the Public	Saving Our Seas	Lauren Hurley, Alice Kang	Wood Middle School	Sarah Haefner
Broadcom MASTERS nomination	Society for Science and the Public	TO VAPE OR NOT TO VAPE	Rabha Reda, Nura Salah	Islamic School of Portland	Nura Elmagbari
Broadcom MASTERS nomination	Society for Science and the Public	THE EFFECT OF VIOLENT AND SCARY VIDEO GAMES ON BLOOD SUGAR LEVELS	Muhammad Gilliard, Abdulkadir Tayba	Islamic School of Portland	Nura Elmagbari
Broadcom MASTERS nomination	Society for Science and the Public	Dirty Water	Kaden Stehr	Yamhill Carlton School District	Lisa Jacobs
Broadcom MASTERS nomination	Society for Science and the Public	Pet water bottle sensor	Matthew Bieker	Cedar Park Middle School	Winter Chung
Broadcom MASTERS nomination	Society for Science and the Public	Dominant "Sweet Spot"	Kady Cluff	Heritage Middle School	Karl Topping
Broadcom MASTERS nomination	Society for Science and the Public	The Gripping Performance of Different Textures on Robot Finger Tips.	Raegan Fordemwalt	Heritage Middle School	Karl Topping
Broadcom MASTERS nomination	Society for Science and the Public	Cell Phone Radiation	Adrian Bayu-Aji	Blanchet Catholic School	Gail Armstrong
Broadcom MASTERS nomination	Society for Science and the Public	How does the amount of cornstarch affect the tensile strength of the bioplastic it forms?	Ellie Tanimura	Lake Oswego Junior High	Joe Godfrey
Broadcom MASTERS nomination	Society for Science and the Public	Which Butterfly Has Æber Lyft?	Ailee Pederson	Winterhaven Middle School	Brian Jay Dyer
Broadcom MASTERS nomination	Society for Science and the Public	Sugar Rockets	James Davis	Sherwood Charter School	Shannon Peterka
Broadcom MASTERS nomination	Society for Science and the Public	Sweet N Cider	Marie Papathanasopoulos	St. Mary Catholic School	Michelle Heuberger

Broadcom MASTERS nomination	Society for Science and the Public	How to prevent EMP's From Ruining Your Life 101	Channing Shuba, Ethan Hadden	Abiqua Academy	David Dittman
Broadcom MASTERS nomination	Society for Science and the Public	A Milli-Watt Energy-Harvesting Light Bulb Based On Thermo-electric Generation	Pratik Vangal	Stoller Middle School	Pamela Svenson
Outstanding Air Quality Project	Southwest Clean Air Agency	Students' affect on Classroom Carbon Dioxide (CO2) Levels	Ari Matzka	Silverton Middle School	Daniel Jamsa
Outstanding Science or Engineering Project	U.S. Air Force	Sweat-Induced Corrosion	Amanda Vasconcellos	Rachel Carson Environmental Middle School	Rebecca Hall
Outstanding Science or Engineering Project	U.S. Air Force	Carbon Capture by Gamma Cyclodextrin	Marissa Kuo	St. Pius X School	Teresa Sebert
Outstanding Science or Engineering Project	U.S. Air Force	An Examination of Nucleation through Video Analysis	Lucas Braun	Summa Whitford	Carolee Dearborn
Outstanding Science or Engineering Project	U.S. Air Force	3D Printed Robotic Hand	Alex Fryer	Summa Whitford	Carolee Dearborn
Outstanding Science or Engineering Project	U.S. Air Force	Analyzing The Electrical and Optical Properties of Quantum Dots: Implications For Medical Imaging and Solar Cells	Kaitlyn Grosh	Cascades Academy of Central Oregon	Anne-Marie Eklund
Outstanding Project in Water Quality	U.S. Geological Survey, Oregon Water Science Center	Making a Homemade Lead Water Filter	Adelle Iseri	Summa Whitford	Carolee Dearborn

Outstanding Project in Water Quality	U.S. Geological Survey, Oregon Water Science Center	Creating a Novel and Affordable Filter to Remove Lead, Mercury, and Cadmium from Water	Eshani Jha	Summa Stoller	Pam Svenson
Outstanding Project in Water Quality	U.S. Geological Survey, Oregon Water Science Center	THE EFFECTS OF SALT WATER PLANTS ON pH OF SALT WATER	Fadel Barhum	Islamic School of Portland	Nura Elmagbari
Outstanding Use of the International System of Units	U.S. Metric Association	Which fruit or vegetable is the best source of vitamin c	Aditya Vishwa	Summa Meadow	Susan Duncan
Outstanding Use of the International System of Units	U.S. Metric Association	How does the temperature of a tennis ball affect the bounce height?	Eli Ross, Roman Sinkus	Lake Oswego Junior High	Joe Godfrey
Surgeon Generals Special Science Award	U.S. Public Health Service	TO VAPE OR NOT TO VAPE	Rabha Reda, Nura Salah	Islamic School of Portland	Nura Elmagbari
Water Prize Award of Excellence	Water Environment Federation	The Quality of Our Water	Simon Walsh	Bridlemile Elementary School	Larry Sherman
Water Prize Award of Excellence	Water Environment Federation	The Water Quality of Trillium Creek	Karah Rhoades	Rosemont Ridge Middle School	Jessamyn Van Hook
Water Prize Award of Excellence	Water Environment Federation	faster methane emissions as a consequence of higher wetland surface temperatures	Eric Xia	Athey Creek Middle School	Stephen Walsh
Water Prize Award of Excellence	Water Environment Federation	Saltwater vs. Freshwater	Julia Seiple	Class Academy	Jaime Mitchell
Water Prize Award of Excellence	Water Environment Federation	What is the best method to desalinate water?	Natalie Foote	Cedar Park Middle School	Winter Chung

Water Prize Award of Excellence	Water Environment Federation	Mud in the Water: Homemade Filtration Systems	Ben Day	St. Francis School	Alison Green
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Category Awards

Category	Place	Title	Student List	Organization	Adult Sponsor
Animal Sciences	First Place	Fantastic Frequencies and Wonderful Webs	Leila Slate	Bend Science Station	Danny Martin
Animal Sciences	Second Place	Brine Shrimp in Different Salinities	Zoe Pruitt, Ave Gray	Summa Whitford	Carolee Dearborn
Animal Sciences	Third Place	Nut Preference in <i>Sciurus carolinensis</i>	Stephen Utter	Leslie Middle School	Mark Madland
Animal Sciences	Honorable Mention	Slugs Resistance to Metal	Simon Carter, Michael Hart	ACCESS Academy	Alfonso Garcia Arriola
Animal Sciences	Honorable Mention	Dog Paw Preference	Aidan Halasy	Sherwood Charter School	Shannon Peterka
Behavioral and Social Science	First Place	How Anchoring Affects Implicit Gender Bias in Adolescents	Kira Dobbins	Robert Gray Middle School	David Wages
Behavioral and Social Science	Second Place	The Application of the Golden Ratio to Food Proportions and How It Impacts Visual Appeal to Humans	Aidan Sheeran-Hahnel	ACCESS Academy	Alfonso Garcia Arriola
Behavioral and Social Science	Second Place	Dominant "Sweet Spot"	Kady Cluff	Heritage Middle School	Karl Topping
Behavioral and Social Science	Third Place	Are you game (Friends vs Strangers who will collaborate better)?	Sienna Smiley	Bridlemile Elementary School	Larry Sherman
Behavioral and Social Science	Third Place	Peppermint increasing reaction test scores	Truitt Reilly, Elayne Short	Silverton Middle School	Daniel Jamsa
Behavioral and Social Science	Third Place	MAYBE WE'RE BORN WITH IS, MAYBE IT'S RACISM	Sumayah Abdirahman	Islamic School of Portland	Nura Elmagbari
Behavioral and Social Science	Honorable Mention	Memory Madness	Ela Garner, Sasha Schotthoefer	Cascades Academy of Central Oregon	Anne-Marie Eklund

Behavioral and Social Science	Honorable Mention	The Differences Between Male and Female Brains When Following Directions	Kate Fronza, Lily Kelley	Silverton Middle School	Daniel Jamsa
Behavioral and Social Science	Honorable Mention	FROM REFUGEE TO EMPLOYEE	Asiya Ali, Jannah Khamis	Islamic School of Portland	Nura Elmagbari
Behavioral and Social Science	Honorable Mention	Students and Teacher Helping Each Other	Andrew VanHorn, Dane Guthner	Rosemont Ridge Middle School	Theresa Ellis
Behavioral and Social Science	Honorable Mention	Effects of Music on Memory	Madeline Moradi	Evergreen Middle School	Dana Riley
Behavioral and Social Science	Honorable Mention	What's that smell?	Hussein Khodor, Daymon Ruano	Whitford Middle School	Monica Garcia
Chemistry	First Place	Sweat-Induced Corrosion	Amanda Vasconcellos	Rachel Carson Environmental Middle School	Rebecca Hall
Chemistry	Second Place	Dirty Water	Kaden Stehr	Yamhill Carlton School District	Lisa Jacobs
Chemistry	Second Place	Sweet N Cider	Marie Papathanasopoulos	St. Mary Catholic School	Michelle Heuberger
Chemistry	Third Place	Effects of pH Levels on Natural Dyes	Emily Hargis	Leslie Middle School	Mark Madland
Chemistry	Third Place	Synthesis of Copper Nanowires	Nayan Murthy	Catlin Gabel School (Middle School)	Anand Murthy
Chemistry	Third Place	Orbeez!	Moriah Dahlgren, Taylor Funk	Seven Oak Middle School	Ashley DaSilva
Chemistry	Third Place	Tea in the spotlight: correlate tea color to pH using a home-built colorimeter	Vladie Mamchik	Orenco Elementary	Alexander Mamchik
Chemistry	Honorable Mention	Which fruit or vegetable is the best source of vitamin c	Aditya Vishwa	Summa Meadow	Susan Duncan
Chemistry	Honorable Mention	Carbon Capture by Gamma Cyclodextrin	Marissa Kuo	St. Pius X School	Teresa Sebert
Chemistry	Honorable Mention	Effects of Temperature on Yeast Catalase	Jonah Paterson	Summa Whitford	Carolee Dearborn
Chemistry	Honorable Mention	Ferrofluid	William Jones	Banks Middle School	Tony Richeson

Chemistry	Honorable Mention	Don't Cry Over Curdled Milk	Elise Kitamura	Heritage Middle School	Karl Topping
Chemistry	Honorable Mention	How The Amount of Fat in Milk Affects The Freezing Time of Ice Cream?	Misaki Tanabe, Barbara Chen, Paige Matthews	Lake Oswego Junior High	Joe Godfrey
Consumer Products Testing	First Place	Cell Phone Radiation	Adrian Bayu-Aji	Blanchet Catholic School	Gail Armstrong
Consumer Products Testing	Second Place	What is the Best Moisturizer to Prevent Eczema?	Hana Omrane	Oregon Islamic Academy	Susan Eslami
Consumer Products Testing	Second Place	How does the amount of cornstarch affect the tensile strength of the bioplastic it forms?	Ellie Tanimura	Lake Oswego Junior High	Joe Godfrey
Consumer Products Testing	Third Place	Which is the best hand gel? Bacteria will tell!	Bianca Haldorsen, Bella Klucevek	St. Pius X School	Teresa Sebert
Consumer Products Testing	Honorable Mention	A taste of Cinnamon: Cleaner Mouth?	Hallie Jones	Heritage Middle School	Karl Topping
Earth Science	First Place	Remote Sensing the Ablation or Accumulation Stages of a Glacier by Using Fractal Analysis on Glacier Images	Mithra Karamchedu	Summa Stoller	Pam Svenson
Earth Science	Second Place	Which buildings in Portland are prepared for an earthquake?	Annabelle Ancheta	Summa Cedar	Winter Chung
Earth Science	Second Place	How does mass affect the speed of Coronal Mass Ejections (CMEs)?	Rose Lawrence	Summa Cedar	Winter Chung
Earth Science	Third Place	The Global Effect of Global Climate Oscillation	Maria Kolatukudy	Summa Meadow	Susan Duncan
Earth Science	Third Place	What type of earthquake causes	Brett Voss	Banks Middle School	Tony Richeson

		more damage to a building			
Earth Science	Third Place	How Does Ground Type Affect Seismic Vibrations?	Pranav Wagh	St. Cecilia School	Amy Stephen
Earth Science	Third Place	Is There a Direct Correlation Between Climate Change and the Amount of Precipitation a Ski Resort Receives Per Year?	Abby Mankin	Lake Oswego Junior High	Joe Godfrey
Earth Science	Honorable Mention	Dendrochronology as an Indicator of Climate Change	Zoe Heino	Summa Whitford	Carolee Dearborn
Earth Science	Honorable Mention	Tsunami Prevention Project	Jenna Eckart	Athey Creek Middle School	Stephen Walsh
Energy	First Place	A Milli-Watt Energy-Harvesting Light Bulb Based On Thermo-electric Generation	Pratik Vangal	Stoller Middle School	Pamela Svenson
Energy	Second Place	Combining Solar and Wind Power for Efficiency	Rishabh Sharma	Summa Stoller	Pam Svenson
Energy	Second Place	Green Cell	Dev Udata	Valley Catholic Middle School	Sarah Zinzer
Energy	Third Place	Using Glucose to Increase the Voltage Output of Microbial Fuel Cells	Ana Tracy	Rachel Carson Environmental Middle School	Rebecca Hall
Energy	Third Place	Battery charged solar car	Emma Legault	Rachel Carson Environmental Middle School	Rebecca Hall
Energy	Third Place	Increasing Electrical Output by Utilizing Both Light and Heat Components of Solar Energy	Rayyan Ansari	Oregon Islamic Academy	Susan Eslami
Energy	Third Place	Temperature of Air versus Rotation of Turbine	Inbaa Chennai	Cedar Park Middle School	Winter Chung

Energy	Honorable Mention	Wind Turbines	Andreas Palmateer	Leslie Middle School	Michael Rockow
Energy	Honorable Mention	Which Battery has the Longest Energy Sustain?	James Hunter	Summa Meadow	Susan Duncan
Energy	Honorable Mention	Insulation of Materials	Thomas Schelert	Summa Whitford	Carolee Dearborn
Energy	Honorable Mention	Microbial Fuel Cell	Mya Kuzmin	Silverton Middle School	Daniel Jamsa
Energy	Honorable Mention	The most effective heat sink design for a modified thermometric generator	Jonathan Tence	Athey Creek Middle School	Stephen Walsh
Energy	Honorable Mention	The Seebeck Effect	Nikolas Vidmantas	St. Francis School	Alison Green
Engineering	First Place	Optimizing Collagen Fiber Ligament Repair Through Flexible Tensile Apparatus	Anya Bohra	Summa Stoller	Pam Svenson
Engineering	Second Place	Which Butterfly Has Æber Lyft?	Ailee Pederson	Winterhaven Middle School	Brian Jay Dyer
Engineering	Second Place	Sugar Rockets	James Davis	Sherwood Charter School	Shannon Peterka
Engineering	Third Place	The First Ternary Electromagnet Computer	Ian Rundle, Nishant Sane	Summa Meadow	Susan Duncan
Engineering	Third Place	One-Handed Clarinet	Lui Blomberg	Wood Middle School	Sarah Haefner
Engineering	Third Place	What Shape For A Train Is The Most Aerodynamic	Hayden Wierman	Athey Creek Middle School	Stephen Walsh
Engineering	Third Place	Reducing Roadkill: A project on Wildlife Mitigation	Alan Ma	Stoller Middle School	Pamela Svenson
Engineering	Honorable Mention	3D Printed Robotic Hand	Alex Fryer	Summa Whitford	Carolee Dearborn
Engineering	Honorable Mention	Walking Electricity Production	Trevor Ortega	Silverton Middle School	Daniel Jamsa
Engineering	Honorable Mention	Air One	Zumee Hasan, Olivia DeFabio	Valley Catholic Middle School	Sarah Zinzer
Engineering	Honorable Mention	Moisture Awareness	Zane Godil	Valley Catholic Middle School	Sarah Zinzer



Engineering	Honorable Mention	Cyborg Cockroaches	Morgan Padberg	Yamhill Carlton School District	Lisa Jacobs
Engineering	Honorable Mention	Deflategate For Real	Josie Moody	Heritage Middle School	Karl Topping
Engineering	Honorable Mention	Bycatch	Shrika Ganta	Stoller Middle School	Pamela Svenson
Engineering: Mechanical and Materials	First Place	Smart Floor	Viti Eachambadi	Summa Stoller	Pam Svenson
Engineering: Mechanical and Materials	Second Place	Structural Stability of Hydropower Buildings	Reyna Ayala	Summa Cedar	Winter Chung
Engineering: Mechanical and Materials	Second Place	Pet water bottle sensor	Matthew Bieker	Cedar Park Middle School	Winter Chung
Engineering: Mechanical and Materials	Third Place	Designing and Testing an Electromagnetic Rail Gun	Natalie Ovena	Rachel Carson Environmental Middle School	Rebecca Hall
Engineering: Mechanical and Materials	Third Place	Making a Homemade Lead Water Filter	Adelle Iseri	Summa Whitford	Carolee Dearborn
Engineering: Mechanical and Materials	Third Place	CEFACS	Sonny Box, Leopold Connor	Leslie Middle School	Mark Madland
Engineering: Mechanical and Materials	Third Place	Is it possible to find the weight of a car without using a scale?	Navy Eriksson	Highland Park Summa Program	Sarah Watterson
Engineering: Mechanical and Materials	Honorable Mention	Solving the World's Problems One Step at a Time	CJ Lao	Summa Meadow	Susan Duncan
Engineering: Mechanical and Materials	Honorable Mention	Preventing Tsunamis 101	Dominic Ricci, Joe Berggren	St. Pius X School	Teresa Sebert
Engineering: Mechanical and Materials	Honorable Mention	Investigations into Mechanical Resonance	Ruby Minato	Robert Gray Middle School	David Wages
Engineering: Mechanical and Materials	Honorable Mention	Using Interlocking Pieces to Make a Building	Joshua Negreanu	Lake Oswego Junior High	Joe Godfrey
Engineering: Mechanical and Materials	Honorable Mention	No Electricity Needed	Lina Norris	Winterhaven Middle School	Brian Jay Dyer

Engineering: Mechanical and Materials	Honorable Mention	Creating a hydraulic arm	Matthew Vignolo	Meadow Park Middle School	Anne McHugh
Environmental Science	First Place	Air Pollution Plant Solution	Harper Smith	Bend Science Station	Danny Martin
Environmental Science	Second Place	Students' affect on Classroom Carbon Dioxide (CO2) Levels	Ari Matzka	Silverton Middle School	Daniel Jamsa
Environmental Science	Second Place	Creating a Novel and Affordable Filter to Remove Lead, Mercury, and Cadmium from Water	Eshani Jha	Summa Stoller	Pam Svenson
Environmental Science	Third Place	Organic Matter- the Future of Pollution	Sarah Ufer	Rachel Carson Environmental Middle School	Rebecca Hall
Environmental Science	Third Place	Preserving Urban Biodiversity: By Using Plants	Ellie Stephens	Summa Meadow	Susan Duncan
Environmental Science	Third Place	Asphalt Turns Cities to Ovens	Azeezah Acar	Oregon Islamic Academy	Susan Eslami
Environmental Science	Third Place	How Does Insulator Density Affect Temperature?	Yusuf Arifin	Summa Cedar	Winter Chung
Environmental Science	Honorable Mention	Indoor House Plants Photosynthesizing Carbon Dioxide	Violet Turner	Rachel Carson Environmental Middle School	Rebecca Hall
Environmental Science	Honorable Mention	The Water Quality of Trillium Creek	Karah Rhoades	Rosemont Ridge Middle School	Jessamyn Van Hook
Environmental Science	Honorable Mention	The effect of increasing water temperature affect Daphnia Magna	Nava Weingrad	Robert Gray Middle School	David Wages
Environmental Science	Honorable Mention	Grass being grown by chemicals	Charles Petrik	Silverton Middle School	Daniel Jamsa
Environmental Science	Honorable Mention	THE EFFECTS OF SALT WATER PLANTS ON pH OF SALT WATER	Fadel Barhum	Islamic School of Portland	Nura Elmagbari
Environmental Science	Honorable Mention	What Makes Ice Melt Fastest?	Lance Tuck	St. Paul Parochial School	Jonathon Williams

Mathematics and Computer Science	First Place	Square Retaining Numbers	Alan Kappler	Carden Cascade Academy	Elizabeth Kappler
Mathematics and Computer Science	Second Place	Can a RNN Find Next-Day Closing Prices for Stocks Within 1%?	Benjamin Hadad, Preston Bushnell, Edward Yu	ACCESS Academy	Alfonso Garcia Arriola
Mathematics and Computer Science	Second Place	eyeRemote	Finn Rutis	Summa Whitford	Carolee Dearborn
Mathematics and Computer Science	Third Place	Raspberry Pi Smart Sprinkler	Krish Aditya	Valley Catholic Middle School	Sarah Zinzer
Mathematics and Computer Science	Third Place	Properties of Julia Sets	Osian Leahy	Yamhill Carlton School District	Lisa Jacobs
Mathematics and Computer Science	Third Place	The creation and use of artificial neural networks	Jalen Chrysos	Meadow Park Middle School	Anne McHugh
Mathematics and Computer Science	Honorable Mention	Can computer fonts replace your handwriting?	Sethu Eapen	Summa Cedar	Winter Chung
Mathematics and Computer Science	Honorable Mention	Is your password as safe as you think it is?	Ben Wieser	Valley Catholic Middle School	Sarah Zinzer
Mathematics and Computer Science	Honorable Mention	Derivatives and the Power Rule	Sadie Cook	Yamhill Carlton School District	Lisa Jacobs
Mathematics and Computer Science	Honorable Mention	Arach-NO-Phobia	Mihir Joshi	Howard Street Charter School	Rashmi Joshi
Mathematics and Computer Science	Honorable Mention	Code it	Brooke Foresee	Blanchet Catholic School	Gail Armstrong
Mathematics and Computer Science	Honorable Mention	An intelligent computer game simulation of Connect 4	Ram Goel	Krishna Homeschool (Middle school)	Gunjan Tiwari
Medicine and Health Sciences	First Place	TO VAPE OR NOT TO VAPE	Rabha Reda, Nura Salah	Islamic School of Portland	Nura Elmagbari
Medicine and Health Sciences	Second Place	Effectiveness of Concussion Bands	Ani Posner	Robert Gray Middle School	David Wages
Medicine and Health Sciences	Second Place	THE EFFECT OF VIOLENT AND SCARY VIDEO GAMES ON	Muhammad Gilliard, Abdulkadir Tayba	Islamic School of Portland	Nura Elmagbari

		<b>BLOOD SUGAR LEVELS</b>			
Medicine and Health Sciences	Third Place	The Effect of Language On Memory	Yimei Li	Summa Whitford	Carolee Dearborn
Medicine and Health Sciences	Third Place	How to Slow Down the Effects of Cataract in Humans	Hafsa Erfan	Oregon Islamic Academy	Susan Eslami
Medicine and Health Sciences	Third Place	Posture Sensing Smart-Chair	Rohan Bopardikar	Stoller Middle School	Pamela Svenson
Medicine and Health Sciences	Honorable Mention	Programming the best change detector to help diagnose diseases	Kritika Bisht	Summa Meadow	Susan Duncan
Medicine and Health Sciences	Honorable Mention	Hypnosis for Better Sleep in Children	Morgan Hutchinson, Dana Savage	Bridlemile Elementary School	Larry Sherman
Medicine and Health Sciences	Honorable Mention	Motion and Memory	Alexis Nord, Robin Brody	Rosemont Ridge Middle School	Jessamyn Van Hook
Medicine and Health Sciences	Honorable Mention	Exploring DNA Damage: How UV Light Affects Yeast	Jenny Duan	Summa Cedar	Winter Chung
Medicine and Health Sciences	Honorable Mention	How do essential oils effect heartrate?	Andrew Worth, Caleb Wilde	Wood Middle School	Sarah Haefner
Microbiology	First Place	Creating an Effective Water Filter With Ocimum Basilicum	Vicky Siah	Summa Stoller	Pam Svenson
Microbiology	Second Place	What spices can be used as antibiotics?	Nissa Watkins	Leslie Middle School	Michael Rockow
Microbiology	Second Place	Changing Waters: Ocean acidification's impact on oyster larvae pathogen Vibrio coralliilyticus	Teaghan Knox	Bend Science Station	Danny Martin
Microbiology	Third Place	Observation of the Development of Resistance by E-Coli to Cephalixin	Yoonis Ali, Aadil Mohamed	Islamic School of Portland	Nura Elmagbari
Microbiology	Third Place	<b>THE GROWTH RESPONSE OF BACILUS THURINGIENSIS</b>	Fatima Erriche	Islamic School of Portland	Nura Elmagbari

		TO DIFFERENT WAVELENGTHS OF LIGHT			
Microbiology	Honorable Mention	What's On Your Phone?	Adin Lyders, Mckenzie Lattig, Chloe Schaberg	Cascades Academy of Central Oregon	Anne-Marie Eklund
Microbiology	Honorable Mention	Effect of Different Water Purification Methods on Bacteria Levels in Melted Snow	Sujena Soumyanath	Robert Gray Middle School	David Wages
Microbiology	Honorable Mention	E.coli Poops Out in The Light	Owen Kane	Winterhaven Middle School	Brian Jay Dyer
Physics: Electromagnetic	First Place	Refraction Action	Jacob Zhao	Bend Science Station	Danny Martin
Physics: Electromagnetic	Second Place	How to prevent EMP's From Ruining Your Life 101	Channing Shuba, Ethan Hadden	Abiqua Academy	David Dittman
Physics: Electromagnetic	Third Place	Analyzing The Electrical and Optical Properties of Quantum Dots: Implications For Medical Imaging and Solar Cells	Kaitlyn Grosh	Cascades Academy of Central Oregon	Anne-Marie Eklund
Physics: Electromagnetic	Third Place	How radiofrequency radiation affects mung bean germination	Huarui Lai	Robert Gray Middle School	David Wages
Physics: Electromagnetic	Third Place	The Effect of Increased Air on Speed Output of an Ion Engine	John Madland, Lucas Rigsby	Leslie Middle School	Mark Madland
Physics: Electromagnetic	Third Place	How Does Wire Gauge Affect a Homopolar Motor?	Elliana Kluherz	St. Cecilia School	Amy Stephen
Physics: Electromagnetic	Honorable Mention	Observing Light at Night: How Light Pollution Affects Star Visibility	Nabila Maazouz	Oregon Islamic Academy	Susan Eslami
Physics: Mechanical	First Place	An Examination of Nucleation through Video Analysis	Lucas Braun	Summa Whitford	Carolee Dearborn

Physics: Mechanical	Second Place	Irish Dance Shoe Fiberglass Patterns	Ruby Sparks	Bend Science Station	Danny Martin
Physics: Mechanical	Second Place	The Gripping Performance of Different Textures on Robot Finger Tips.	Raegan Fordemwalt	Heritage Middle School	Karl Topping
Physics: Mechanical	Third Place	Angle of Impact and Its Affect on Liquid Spatter	Dylan Podrabsky	Rachel Carson Environmental Middle School	Rebecca Hall
Physics: Mechanical	Third Place	Drawing with Pendulums: Building and simulating a harmonograph	Matthew Bryan, Adam Jones	Summa Meadow	Susan Duncan
Physics: Mechanical	Third Place	Solving First World Problems - One Cup at a Time (Developing a color changing sticker for hot beverages)	Tiffany Toh	Summa Cedar	Winter Chung
Physics: Mechanical	Third Place	Does the Amount of Air Inside a Basketball Affect its Bounce Height?	Colin Galbraith, Mohnish Judge	Lake Oswego Junior High	Joe Godfrey
Physics: Mechanical	Honorable Mention	The strength of surface tension with different additives	Max Beauregard	Rachel Carson Environmental Middle School	Rebecca Hall
Physics: Mechanical	Honorable Mention	Bottle Flipping Craze: How Much Water Should Your Bottle Contain?	Jake Brauser	Bridlemile Elementary School	Larry Sherman
Physics: Mechanical	Honorable Mention	Underwater R.O.V.	Trinity Ellis	Yamhill Carlton School District	Lisa Jacobs
Physics: Mechanical	Honorable Mention	How does the type of material affect sound proofing?	Eleanor Wier	Cedar Park Middle School	Winter Chung
Physics: Mechanical	Honorable Mention	How does the temperature of a tennis ball affect the bounce height?	Eli Ross, Roman Sinkus	Lake Oswego Junior High	Joe Godfrey
Physics: Mechanical	Honorable Mention	Cones, Make it louder!	Micah Powch	Winterhaven Middle School	Jason Giles
Plant Sciences	First Place	Walking Stick Snack: Do Plant pH Levels Affect	Kent Koehler	Bend Science Station	Danny Martin

		Walking Stick Eating Habits			
Plant Sciences	Second Place	Beneficial or Dangerous? How Phosphates in Runoff Affect Freshwater Plant Life	Rowan Porter	Bridlemile Elementary School	Larry Sherman
Plant Sciences	Second Place	Saving Our Seas	Lauren Hurley, Alice Kang	Wood Middle School	Sarah Haefner
Plant Sciences	Third Place	The Effects of Radiation on Radish Growth	Hannah Worden	Robert Gray Middle School	David Wages
Plant Sciences	Third Place	Testing Carrots for Acetoin through P. Carotovorum Growth	Alexandra Garvin	Heritage Middle School	Karl Topping
Plant Sciences	Honorable Mention	Sunflowers and Sunlight	Esme Illing	Winterhaven Middle School	William Thompson
Plant Sciences	Honorable Mention	Radish Seeds and Different Growing Soils	Josh Hale	Silverton Middle School	Daniel Jamsa
Plant Sciences	Honorable Mention	How does the type of music affect the Mimosa Pudica's ability to respond to being touched?	Whitney Langford	Lake Oswego Junior High	Joe Godfrey
Plant Sciences	Honorable Mention	Effect of CO2 on Plants	Ankur Moolky	Stoller Middle School	Pamela Svenson