

2014 Intel Northwest Science Expo Middle School Awards

March 21, 2014 the following awards were given out at the 31st Annual Intel Northwest Science Expo Middle School fair. All Best in Category and First Place winners were also nominated for the Broadcom Masters Competition. More than 279 prizes were handed out. Congratulations to Divya Amirtharaj and Nandini Naidu our Best of Fair Winners.

Best of Fair and Best in Category Winners

Both Best of Fair winners receive a plaque and \$100. All Best of Category Winners receive a medal and \$50.

Special Award	Award Sponsor	Title	Student List	Organization	Teacher
Best of Fair	Legacy Emanuel Medical Center	Sequestrating CO2 from Exhaust Gas	Divya Amirtharaj	Summa Meadow	Susan Duncan
Best of Fair	Legacy Emanuel Medical Center	Treating Lung Cancer: By Manipulating Epidermal Growth Factor Receptor Signaling Pathways	Nandini Naidu	Valley Catholic Middle School	Sarah Zinzer
Best of Category in Animal Science	Aubrey Clark	Determining the effects of Tapeworm (schistocephalus solidus) infection upon Stickleback (Gasterosteus aculeatus) behavior collected from a Central Oregon pond.	Raven Dow-Hygelund	Bend Science Station	Danny Martin
Best of Category in Behavioral and Social Science	Portland Alcohol Research Center at OHSU & VAMC	How Do Fears Change with Age?	Casey Kavanaugh	Whitford Middle School	Jody Reeg
Best of Category in Chemistry	The Bilow Group - Lake Oswego, OR	Treating Lung Cancer: By Manipulating Epidermal Growth Factor Receptor	Nandini Naidu	Valley Catholic Middle School	Sarah Zinzer

		Signaling Pathways			
Best of Category in Consumer Product Testing	Eclipse Technologies	The Protective Effects of Sunscreen	Larissa Chan	Lake Oswego Junior High	Greg Mylet
Best of Category in Earth Science	Speedy Septic Service	The Biofixation of Carbon Dioxide Using Coccolithophorid Algae	Andrea Bian, Helen Wong	Summa Whitford	Carolee Dearborn
Best of Category in Energy	Northwest Power and Conservation Council	Electromagnetic Generator in Solar Updraft Tower	Stuti-Garg Parsa-Aghel	Meadow Park Middle School	Tymon Emch
Best of Category in Engineering	Ralph M Cohen Consultancy	Camera Dolly	Kelvin Romano	Summa Whitford	Carolee Dearborn
Best of Category in Engineering: Mechanical and Materials	Ralph M Cohen Consultancy	Water Out of Nowh 'AIR'	Kirstin Lovely	Valley Catholic Middle School	Sarah Zinzer
Best of Category in Environmental Science	Tualatin River Watershed Council	Sequestrating CO2 from Exhaust Gas	Divya Amirtharaj	Summa Meadow	Susan Duncan
Best of Category in Mathematics and Computer Science	Columbia Willamette Chapter of Sigma Xi	Automating Robot Navigation	Theresa D'Silva	Summa Stoller	Todd Freiboth
Best of Category in Medicine and Health	Oregon Health and Sciences University	Fruit or Juice?	Ashley Calder	Rachel Carson Environmental Middle School	Rebecca Hall
Best of Category in Microbiology	Legacy Emanuel Medical Center	Yeast Strain Stamina	Casey Novak	St Paul Parochial School	Jonathon Williams
Best of Category in Physics: Electromagnetic	Claude and Florence Zeller	Laser Color in the Double Slit Experiment	Sorcha O'Connor, Paige Greene, Ana Alcantar	Leslie Middle School	Michael Rockow
Best of Category in Physics: Mechanical	Claude and Florence Zeller	Effective Use of Gallium Antimonide	Shahir Rahman	Summa Stoller	Nick Badyrka

		Thermopiles for Intelligent Cooking and Fire Prevention			
Best of Category in Plant Science	Columbia Willamette Chapter of Sigma Xi	Co2 intake in Trees	Medha Kumar	Summa Meadow	Susan Duncan

Category Award winners each received a ribbon.

Category	Place	Title	Student List	Organization	Adult Sponsor
Animal Sciences	First Place	Are OES' Hummingbirds Smarter Than Others?	Alison Thomas	Oregon Episcopal Middle School	Christopher Mader
Animal Sciences	First Place	Effectiveness of Different Sleep Cycles on the Drosophila Melanogaster	Jackie Zhang	Summa Stoller	Todd Freiboth
Animal Sciences	Second Place	What insulators improve the conditions in bee hives the greatest?	Grant Gabel	Rachel Carson Environmental Middle School	Rebecca Hall
Animal Sciences	Second Place	Chicken Egg Quality	Jeremy Hale	Mark Twain Middle School	Daniel Jamsa
Animal Sciences	Second Place	Testing Human Scent Perception with Pinus Ponderosa	Carter Thomas	John McLoughlin Elementary School	Rebecca Thomas
Animal Sciences	Third Place	Crustacean Fluoridation	Julia Rehmann	Winterhaven Middle School	Wendy Archibald
Animal Sciences	Third Place	Chemical VS Natural Pest Control in Honey Bees	Elizabeth Kovanda	Valley Catholic Middle School	Sarah Zinzer
Animal Sciences	Third Place	Fruit Salad! Yummy, Yummy	Sarah Jones	Valley Catholic Middle School	Sarah Zinzer
Animal Sciences	Third Place	The Smelling Games	Lily Hodson	Cascade Heights Public Charter School	Holly Denman

Animal Sciences	Honorable Mention	Dawn, Tide, and Wind Vs. Algae and Daphnia	Grace Gibbs	Summa Whitford	Carolee Dearborn
Animal Sciences	Honorable Mention	Evolution of Species	Melinda Sun	Highland Park Summa Program	Sarah Weller
Animal Sciences	Honorable Mention	A Bird's Eye View of Colors	Taylor Isaac	St. Cecilia School	Amy Stephen
Behavioral and Social Science	First Place	What is the percentage of people that listen to music during different types of exercise	Ashok Kaushik, Daniel Luo	ACCESS	Alfonso Garcia Arriola
Behavioral and Social Science	First Place	Optimal Age to Learn an Additional Language	Ruchi Vora	Stoller Middle School	Case Kauzer
Behavioral and Social Science	Second Place	Gender Bias	Eudie Goganian	Rachel Carson Environmental Middle School	Rebecca Hall
Behavioral and Social Science	Second Place	How do distractions affect the ability to identify pictures?	Meghan Buchanan	Summa Whitford	Carolee Dearborn
Behavioral and Social Science	Second Place	Sibling Birth Order and Gender to Intelligence and Relationships.	Elijah Rakha-Shekotoff	Mark Twain Middle School	Daniel Jamsa
Behavioral and Social Science	Third Place	Safety from the Backseat: Children's Experience with Adults Who Use Mobile Phones While Driving	Zaidie Long	ACCESS	Alfonso Garcia Arriola
Behavioral and Social Science	Third Place	Mom You're Not Listening To Me!!!!!! Can Sign Language Reduce Baby Tantrums?	Fetheya Alattar	Baker Web Academy	Manar Alattar
Behavioral and Social Science	Third Place	HONESTY AMONG PEOPLE	AISHA ALI, IHSAN ALI	Islamic School of Portland	Annie Petrossian

Behavioral and Social Science	Third Place	I Spy?	Sarah Schultz	Yamhill Carlton School District	Lisa Jacobs
Behavioral and Social Science	Honorable Mention	The emotional responses towards oil pastels and photography	Anneka Wedell, Anna Focht	Oregon Trail Academy	Georgi Harris
Behavioral and Social Science	Honorable Mention	Do You Hear What I Hear?	Mariam Malik	Bonny Slope	Aneela Afzal
Behavioral and Social Science	Honorable Mention	Motivation in Kids	Maren Rawlins	Highland Park Summa Program	Sarah Weller
Behavioral and Social Science	Honorable Mention	How Does Color Have It?	NASRA ALI	Islamic School of Portland	Annie Petrossian
Behavioral and Social Science	Honorable Mention	How Does the Ability to Resist Temptation Affect Academic Performance?	Amy Sloan	Robert Gray Middle School	Katy Wagner-west
Behavioral and Social Science	Honorable Mention	Comparing Advertising Media	Jude Augustine	Meadow Park Middle School	Tymon Emch
Chemistry	First Place	Got Calcium? - The Effectiveness of Different Natural Remedies for Calcium Deficiency	Jessica Yu	Highland Park Summa Program	Sarah Weller
Chemistry	First Place	A Novel Biocompatible, Cost-Effective, Mechanically Resilient Medical Implant Material: Rearrangement of Polymeric Microarchitecture for Generation of Hydrophilicity Using Plasma Treatment	Arnob Das	Summa Stoller	Nick Badyrka
Chemistry	Second Place	Heat and Greet	Subisha Sundaram	Rachel Carson Environmental Middle School	Rebecca Hall

Chemistry	Second Place	Photoelectrochemical Water Splitting	Maxfield Parson-Scherban	Robert Gray Middle School	Katy Wagner-west
Chemistry	Second Place	Lichen Acidity and Proximity to Major Roadways	Sanjana Basak	Rosemont Ridge Middle School	Jennifer Owens
Chemistry	Third Place	The Solution is Clear!	Joseph Rose	Winterhaven Middle School	Wendy Archibald
Chemistry	Third Place	GERM KILLER: BASE OR ACID?	YAHYA ALI	Islamic School of Portland	Annie Petrossian
Chemistry	Third Place	Will The Color Of Hair Dye Effect The Strength Of Hair?	Halle Harris, Chloe Newton	Yamhill Carlton School District	Lisa Jacobs
Chemistry	Third Place	ELECTROLYTE CHALLENGE	Dhruthi Mandavilli	Roosevelt Middle School	Bhaskar Mandavilli
Chemistry	Honorable Mention	Metal Corrosion	Tyler Durham	Summa Cedar	Winter Chung
Chemistry	Honorable Mention	Bio-Diesel: Fuel of the Future?	Will Sisley	Mark Twain Middle School	Daniel Jamsa
Chemistry	Honorable Mention	Effect of Commonly Consumed Beverages on the Human Stomach	Nate Campbell	Straub Middle School	Kelsey Miller
Chemistry	Honorable Mention	The Maximization of Electrolysis	Shasank Bonthala	Meadow Park Middle School	Tymon Emch
Chemistry	Honorable Mention	Baking Soda and Vinegar Explosions...with Food Coloring	Sara Sanders	St. Cecilia School	Amy Stephen
Chemistry	Honorable Mention	Walking On Water	Katie Swanson, Abbie Weaver	Whitford Middle School	Jody Reeg
Consumer Products Testing	First Place	The Effectiveness of Today's High-End Air Filters on Indoor Air Quality: the Race to Nowhere	Aayush Bhatt	Stoller Middle School	Christina Slater
Consumer Products Testing	First Place	When "Diesel" Freezes Over	Josie Wright	Yamhill Carlton School District	Lisa Jacobs

Consumer Products Testing	Second Place	Vitamin Solubility	Samantha Weiss	Leslie Middle School	Michael Rockow
Consumer Products Testing	Second Place	THE SKINNY ON MOISTURIZERS	LAYAAL KHELLAH	Islamic School of Portland	Annie Petrossian
Consumer Products Testing	Second Place	Stop Hearing Loss!	SALMA ABDULKADIR, AMINAH KAMAWAL	Islamic School of Portland	Annie Petrossian
Consumer Products Testing	Third Place	Can a smartphone become dangerous to your ears?	Kellen Petersen	Summa Whitford	Carolee Dearborn
Consumer Products Testing	Third Place	Does an Irradiated or Washed Apple a Day Keep The Doctor Away???	Luka Perle, Skyler Gilbride	Bend Science Station	Danny Martin
Consumer Products Testing	Third Place	Effects of different sock materials on insulation	Lewis Tawney	Summa Cedar	Winter Chung
Consumer Products Testing	Third Place	Comparing Waterproof Bandages	Sophie Harrison	KNOVA Learning	Anika Baker
Consumer Products Testing	Honorable Mention	Baseball bats	Davis Olson	Rachel Carson Environmental Middle School	Rebecca Hall
Consumer Products Testing	Honorable Mention	Cheese-A-Liciousness	Marco Navarro, Matthew Devlin	St. Pius X School	Teresa Sebert
Consumer Products Testing	Honorable Mention	One Yellow for Another	Grace Wetzler, Geneva Klucevek	St. Pius X School	Teresa Sebert
Consumer Products Testing	Honorable Mention	Hairspray - Not the Musical	Emma Williams	Rosemont Ridge Middle School	Jessamyn Van Hook
Consumer Products Testing	Honorable Mention	Does the type of shoe affect how high a person can jump?	John Banks	Black Butte School	Sam Pierce
Consumer Products Testing	Honorable Mention	How to Change the Keys on a Keyboard	Shubhan Patankar, Torin Repasky	Class Academy	Jaime Mitchell
Earth Science	First Place	Water Quality in Silver Falls Schools	Jasmin Pyper	Mark Twain Middle School	Daniel Jamsa

Earth Science	Second Place	Carbon Dioxide Emissions and Effects on Marine Creatures Dependent on Calcium Carbonate	Geordie Tilt	Cedar Park Middle School	Winter Chung
Earth Science	Third Place	Growing alum crystals	Tristan Madron	Whitford Middle School	Jody Reeg
Earth Science	Honorable Mention	Constructing the Best Bioswale	Andrew Lane	Summa Meadow	Susan Duncan
Earth Science	Honorable Mention	A Search for Cleaner Water: Incorporating Both Mechanical and Chemical Purification Technologies Into Water Filters	Harish Palani	Summa Stoller	Nick Badyrka
Earth Science	Honorable Mention	How does location affect lead contamination in soil?	McKenna Finley	Cedar Park Middle School	Winter Chung
Energy	First Place	Is Ethanol the End-All of the future fuel challenges?	Harshita Narayanan	Stoller Middle School	Christina Slater
Energy	First Place	Power Play	Tess Connerty, Lucie LeRutt, Anwasha Mukherjee	Class Academy	Jaime Mitchell
Energy	Second Place	Turn of the Turbine	Benjamin Tracy	Rachel Carson Environmental Middle School	Rebecca Hall
Energy	Second Place	The Power of Mud: Comparing if Beach Topsoil Produces More Energy Than Store-Bought Topsoil	Julia Pippenger	Bridlemile Elementary School	Larry Sherman
Energy	Second Place	The Effect of Color Filters on Solar Cell Output	Gabriel Sauer	Summa Whitford	Carolee Dearborn
Energy	Third Place	Will there be enough solar power to run the	Ritika Jain	Summa Meadow	Susan Duncan

		Hyperloop from Los Angeles to San Francisco			
Energy	Third Place	How Will the Shape of the Blades on a Wind Turbine Affect How Fast the Blades Spin?	Timothy Shortell	Summa Cedar	Winter Chung
Energy	Third Place	Effective Hydroelectric Power	Lina Droste	Highland Park Middle School	Karen Nelson
Energy	Third Place	Look Towards a Brighter Future: Biodegradable Batteries	Aashish Anand	Summa Stoller	Todd Freiboth
Energy	Honorable Mention	Heat it Up!: Will a Common Pitched Roof Heat a Structure More Than a Flat Roof?	Aviva Soll	Winterhaven Middle School	Wendy Archibald
Energy	Honorable Mention	Biogas	Marlee Feltham	Rosemont Ridge Middle School	Steve Davala
Energy	Honorable Mention	micro-hydroelectric generator	Rowan Lieggi	Mark Twain Middle School	Daniel Jamsa
Energy	Honorable Mention	Which light bulb gives of the most lux for the energy put into the bulb?	Juliana Bachulis	Metro montessori middleschool	Jonathan Erickson
Energy	Honorable Mention	Gearing ratio of wind turbines	Jordan Bancroft	Athey Creek Middle School	Julie Jones
Engineering	First Place	Stove Watch	Archita Harathi	Meadow Park Middle School	Tymon Emch
Engineering	Second Place	Magnetic Hovercraft	Skylar Killian, Alma Nye, Sami Woodring	Oregon Episcopal Middle School	Christopher Mader
Engineering	Second Place	An Arm that Moves Fluidly	Calvin McHenry	Rosemont Ridge Middle School	Theresa Ellis

Engineering	Second Place	Hovercraft design	Aaron Markstaller	Rosemont Ridge Middle School	Theresa Ellis
Engineering	Third Place	Using a Cell Phone to Control the Lights	Laura Jiang	Lake Oswego Junior High	Greg Mylet
Engineering	Third Place	Electricity From Shoe	Gabe Kofstad, William Wright	Mark Twain Middle School	Daniel Jamsa
Engineering	Third Place	An Innovative and Smart Irrigation Technique for Drought Hit Regions	Anusha Bohra	Summa Stoller	Nick Badyrka
Engineering	Third Place	Saltwater Powered Flashlight	Gigi Schweitzer, Sarah Ladha	Rosemont Ridge Middle School	Jennifer Owens
Engineering	Honorable Mention	Automatic Livestock Watering System	Luke Weber, Isabelle Cabrera	Oregon Trail Academy	Georgi Harris
Engineering	Honorable Mention	Shooting for the Stars: Designing Rockets That Travel Farther and With More Efficiency	Nicole Miller	Summa Cedar	Winter Chung
Engineering	Honorable Mention	Boat designed to reduce seasickness	Peyton Butler	Wood Middle School	Cynthia Jones
Engineering: Mechanical and Materials	First Place	More Than A Toy: SHRINKY DINKS!	Lauren Li	Summa Meadow	Susan Duncan
Engineering: Mechanical and Materials	First Place	What is the best way to effect a hydraulics machines output force?	Rohan Press	Metro montessori middleschool	Jonathan Erickson
Engineering: Mechanical and Materials	Second Place	Locker Logic	Alex Moore	Valley Catholic Middle School	Sarah Zinzer
Engineering: Mechanical and Materials	Second Place	Pointe of Impact	Anna Horne	St. Cecilia School	Amy Stephen
Engineering: Mechanical and Materials	Second Place	Soda Can Alcohol Stoves For Self Sufficiency In Third World Countries	Fiona Dietch	Cascade Heights Public Charter School	Holly Denman

Engineering: Mechanical and Materials	Third Place	Can Paper be used as Armor?	Cole Kesey, Lucas Hildahl, Colin Powell	Leslie Middle School	Michael Rockow
Engineering: Mechanical and Materials	Third Place	Staying Cool: An Exploration of Alternative Wall Insulations	Rosie Parker	St. Pius X School	Teresa Sebert
Engineering: Mechanical and Materials	Third Place	Are Your Window Panes a Thermal Pain?	Nathaniel Clevenger	St. Pius X School	Teresa Sebert
Engineering: Mechanical and Materials	Third Place	Reducing Water Disturbance with Ship Maneuvers	Sarah Khalil, Aden Kareem	Oregon Islamic Academy	Yusef Shari'ati
Engineering: Mechanical and Materials	Honorable Mention	How does a speaker's diaphragm affect the amount of decibels it produces?	Jeremy Hammerberg	Summa Whitford	Carolee Dearborn
Engineering: Mechanical and Materials	Honorable Mention	Shoe Lights	Olivia Terry-Gray	Valley Catholic Middle School	Sarah Zinzer
Engineering: Mechanical and Materials	Honorable Mention	How Does the Metal Used in a Thermoelectric Generator Affect the Efficiency and Output?	Chris Dunstan	Athey Creek Middle School	Stephen Walsh
Engineering: Mechanical and Materials	Honorable Mention	Land Air Flying Car	Julia Beaupre, Aditya Sood	Class Academy	Jaime Mitchell
Engineering: Mechanical and Materials	Honorable Mention	Design of a Underwater Seismograph	Sydney Siemens, Harley Sirovyak	Class Academy	Jaime Mitchell
Engineering: Mechanical and Materials	Honorable Mention	Testing Flood Prevention Barriers	Peter Fink, Nathan Jesudason	Hosford Middle School	Patrick Mangan
Environmental Science	First Place	Development of Forest Fire Prediction Tool for the State of Oregon	Leo Deng	ACCESS	Alfonso Garcia Arriola
Environmental Science	First Place	Detection of Dinotefuran in Honey following Safari Insecticide Application	Raley Schweinfurth	Oregon Episcopal Middle School	Ryan Holland

Environmental Science	Second Place	The Innovation Above Our Heads	Jasmine Yu	Highland Park Summa Program	Sarah Weller
Environmental Science	Second Place	Trapping Strontium	Emma Yang	Summa Stoller	Todd Freiboth
Environmental Science	Second Place	Local Bodies of Water and pH Differences	Liz Dennis-Pavlich	Cedar Park Middle School	Winter Chung
Environmental Science	Third Place	No Harm, No Fowl	Adam Nayak	Winterhaven Middle School	Wendy Archibald
Environmental Science	Third Place	What's in Your Water? A Study of Portland Waterways	Hoda AbouEich	Oregon Islamic Academy	Yusef Shari'ati
Environmental Science	Third Place	Solution for Pollution: Carbon Scrubbing in Vehicle Emissions	Eman Alturky, Sarah Fattom, Ibrahim Ibrahim	Oregon Islamic Academy	Yusef Shari'ati
Environmental Science	Third Place	A Novel Analysis of Inexpensive and Eco-Friendly Bio-adsorbents for the Removal of Ciprofloxacin pollutants in Surface Water	Naren Gaurav	Meadow Park Middle School	Tymon Emch
Environmental Science	Honorable Mention	Wind Turbine	Heber Salinas, Ryan Bohl	Leslie Middle School	Michael Rockow
Environmental Science	Honorable Mention	Oil Spills Spell Disaster	Dominic Funk, Derek Long	Visitation School	Mrs. Carol Funk
Environmental Science	Honorable Mention	The effect of different pollutants on the biology of a freshwater aquatic ecosystem	Hemen Khanna	Stoller Middle School	Laura Burger
Environmental Science	Honorable Mention	Mycelium Methane Filter	Ben Collins, Devon Waldron	Oregon Trail Academy	Georgi Harris
Environmental Science	Honorable Mention	Creating a better insulated wall board with salvaged materials	Mihira Sogal	Summa Cedar	Winter Chung
Environmental Science	Honorable Mention	Improving Air Quality in a Vehicle	Aditya Sharoff	Meadow Park Middle School	Tymon Emch

Mathematics and Computer Science	First Place	Character Recognition Using Bézier Curves	Aneesh Gupta	Oregon Episcopal Middle School	Anna Rozzi
Mathematics and Computer Science	Second Place	Visualize Carbon Footprint in dollars	Patrick Huang	Summa Whitford	Carolee Dearborn
Mathematics and Computer Science	Second Place	Holographic scanning and display system	Eric Stevens	Summa Whitford	Carolee Dearborn
Mathematics and Computer Science	Second Place	Smart Backpack - Never Forget your Homework ... Never !!	Neha Mishra	International School of Beaverton Middle School	Meena Mishra
Mathematics and Computer Science	Third Place	Tic-Tac-Toe Solving Program	Eric Tong	Summa Meadow	Susan Duncan
Mathematics and Computer Science	Third Place	Turn-Based Strategy Game (Including AI) in Python and Pygame	Kimberly Li, Kariessa Schultz	Summa Whitford	Carolee Dearborn
Mathematics and Computer Science	Third Place	Plenty of Fish in the Sea, Mabye Not	Nihar Koppolu	Highland Park Summa Program	Sarah Weller
Mathematics and Computer Science	Third Place	Java: A language for the rest of us.	Michael McCann	Highland Park Middle School	Karen Nelson
Mathematics and Computer Science	Honorable Mention	Audio File Format	Keri Zhou	Highland Park Summa Program	Sarah Weller
Mathematics and Computer Science	Honorable Mention	Lost? Know Your Location	Shefali Goel	Stoller Middle School	Christina Slater
Mathematics and Computer Science	Honorable Mention	Saving Fish with a Game	Katherine Bernklau-Halvor	Baker Prairie Middle School	Tara Christian
Mathematics and Computer Science	Honorable Mention	Computer vision methods for plane detection	Keizo Morgan	Meadow Park Middle School	Tymon Emch
Mathematics and Computer Science	Honorable Mention	XBox for Dummies	Aallan McKenzie	KNOVA Learning	Anika Baker
Mathematics and Computer Science	Honorable Mention	Video Game for the Blind	Courtney Smith	Cedar Park Middle School	Winter Chung
Medicine and Health Sciences	First Place	Daphnia's Heartbeat and Triclosan	Simran Jhooty	Oregon Episcopal Middle School	Anna Rozzi
Medicine and Health Sciences	First Place	It's A Matter of Life and	Aditya Jain	Summa Stoller	Nick Badyrka

		Breath: An Improved Automated Diagnostic Tool for Lung Cancer Solitary Pulmonary Nodule Detection			
Medicine and Health Sciences	Second Place	Hidden Traces: Fingerprints Revealed	Finn Anson	Bridlemile Elementary School	Larry Sherman
Medicine and Health Sciences	Second Place	A Leg Up: Helping Test new Cartilage	Luc Somoza	Summa Whitford	Carolee Dearborn
Medicine and Health Sciences	Second Place	How Does the Acidity of Different Drinks Affect the Size and Weight of Teeth?	Nicholas Kim	Athey Creek Middle School	Stephen Walsh
Medicine and Health Sciences	Third Place	Sleep Study	Delaney Frank, Meg Takara, Sandra Garcia	Leslie Middle School	Michael Rockow
Medicine and Health Sciences	Third Place	Correlative Anysis Between The Progression of Atherosclerosis and Blood Flow	Raveena Manivannan	Meadow Park Middle School	Tymon Emch
Medicine and Health Sciences	Third Place	Alzheimer's Disease: Does It Steal Facial Recognition Abilities?	Grant Grainger	Cascade Heights Public Charter School	Holly Denman
Medicine and Health Sciences	Third Place	Submerging teeth in various liquids	Jacob Ediger, Allison Ediger	Cascade Heights Public Charter School	Holly Denman
Medicine and Health Sciences	Honorable Mention	Preventing Concussion	Vince Seth	Rosemont Ridge Middle School	Jessamyn Van Hook
Medicine and Health Sciences	Honorable Mention	Do Males and Females See Differently?	Gabe Armattoo	Rosemont Ridge Middle School	Jessamyn Van Hook
Medicine and Health Sciences	Honorable Mention	The Effects of Different Antibiotics on Bacteria	Ethan Tsao	Highland Park Summa Program	Sarah Weller
Medicine and Health Sciences	Honorable Mention	PEPPERMINT AND REACTION TIME	NAJMA ABDI, SADIA NOOR	Islamic School of Portland	Annie Petrossian

Medicine and Health Sciences	Honorable Mention	Blood Pressure, How Can We Lower It?	Gota Koyama	Stoller Middle School	Christina Slater
Medicine and Health Sciences	Honorable Mention	Do we see the same wave lengths(colors)?	Madi Eberhard	Heritage Middle School	Karl Topping
Microbiology	First Place	Effectiveness of Antibacterial Soap versus Regular Soap	Natalie Wang	ACCESS	Alfonso Garcia Arriola
Microbiology	First Place	Wake Up Water Bear	Brock Henry, Garrett Taylor	Highland Park Summa Program	Sarah Weller
Microbiology	Second Place	Culture on the Cheap	Dashiell Rucka	Winterhaven Middle School	William Thompson
Microbiology	Second Place	The Effect of Gap Junction Inhibitors on the Polarity of Regeneration in Planaria	Kian Patton	Meadow Park Middle School	Tymon Emch
Microbiology	Third Place	Prakrunya Subhasree Badrinarayan	Stoller Middle School	Suki Birge	
Microbiology	Third Place	Digestive Enzymes - Amylase	Anda Gherghe	Summa Stoller	Todd Freiboth
Microbiology	Honorable Mention	Are mushrooms anti-bacterial?	Sophie Bearden-Croft	Bridlemile Elementary School	Larry Sherman
Microbiology	Honorable Mention	The Effect of Plasmid Quantity in Bacteria Transformation	Justin Bagoyo, Tyler Sy	Summa Whitford	Carolee Dearborn
Physics: Electromagnetic	First Place	Diamagnetic Levitation of a Permanent Magnet over a YBCO Superconductor	Jasmine Guliani	Summa Meadow	Susan Duncan
Physics: Electromagnetic	First Place	UV Radiation	James Verheyden	Cascades Academy of Central Oregon	Anne-Marie Eklund
Physics: Electromagnetic	Second Place	How the Core Size of an Electromagnet Affects Strength	Konner Feldman	Bridlemile Elementary School	Larry Sherman
Physics: Electromagnetic	Second Place	Saving Fossil Fuels: One Step at a Time	Mukund Madhusudan	Summa Stoller	Nick Badyrka

Physics: Electromagnetic	Second Place	If we test the radiation of three phones, front, back and sides, at different distances will we get different readings?	Claire LeBlanc, Andrea Percic, Zahra Sherman	Metro montessori middleschool	Jonathan Erickson
Physics: Electromagnetic	Third Place	Lasers Through Colored Gelatin	Claire Nikong	Summa Whitford	Carolee Dearborn
Physics: Electromagnetic	Third Place	Extreme Efficiency	Cole Jones	Highland Park Summa Program	Sarah Weller
Physics: Electromagnetic	Third Place	Revealing True Colors	Kaavya Subramanian	Stoller Middle School	Kirk Koehler
Physics: Electromagnetic	Third Place	Magnetism- How Curie-ous	Charlie Law	Valley Catholic Middle School	Sarah Zinzer
Physics: Electromagnetic	Honorable Mention	How Does the Force Between a Piece of Metal and a Magnet Vary With Distance?	Nate Archibald	Summa Cedar	Winter Chung
Physics: Electromagnetic	Honorable Mention	The effects of Wavelength on light Diffraction	Nicholas Chang, Charlie Norgaard	Oregon Episcopal Middle School	Christopher Mader
Physics: Electromagnetic	Honorable Mention	Are less expensive batteries really cheaper?	Alex Kupersmith	Highland Park Middle School	Karen Nelson
Physics: Electromagnetic	Honorable Mention	Hot Wire	Shanna Spiering	Banks Junior High School	Tony Richeson
Physics: Electromagnetic	Honorable Mention	Magnetic Shielding	Phillip Miller	Cedar Park Middle School	Winter Chung
Physics: Mechanical	First Place	How does the percent concentration in a corn- syrup to water solution affect speed (in cm/seconds) through a narrow tube?	Deepto Mizan	Stoller Middle School	Kirk Koehler
Physics: Mechanical	First Place	An Acoustical Investigation of Western Classical Music Theory	Aditya Sivakumar	International Connections Academy	Rajshree Sankaran

Physics: Mechanical	Second Place	Roller Coaster Marbles: Converting Potential Energy to Kinetic Energy	CJ Hyneman, Kristen Luna	Visitation School	Mrs. Carol Funk
Physics: Mechanical	Second Place	Effect of mass on the rolling distance of a Toy Car	Anthony Piacentini	Robert Gray Middle School	Katy Wagner- west
Physics: Mechanical	Second Place	And the Ref Drops the Puck!	Joshua Caraher	Valley Catholic Middle School	Sarah Zinzer
Physics: Mechanical	Third Place	Insulation Innovation!	Andrea Tongsak	Valley Catholic Middle School	Sarah Zinzer
Physics: Mechanical	Third Place	The Effects of Variable Sound Frequencies on a Non-Newtonian Fluid	Olivia Corcoran	Baker Prairie Middle School	Tara Christian
Physics: Mechanical	Third Place	How Elevation Affects the Force of Gravity Between the Earth and an Object	Josie O'Harrow	Banks Junior High School	Tony Richeson
Physics: Mechanical	Third Place	How the angles in the triangles of a tuss bridge affect how much weight the bridge can hold.	Kylie Thomas	Whitford Middle School	Jody Reeg
Physics: Mechanical	Honorable Mention	Water-Cement Ratio Affecting Durability of Concrete	Paul McDougald	Summa Meadow	Susan Duncan
Physics: Mechanical	Honorable Mention	Harmonographs: The Machine of the Past	Anneliese Bishop	Highland Park Summa Program	Sarah Weller
Physics: Mechanical	Honorable Mention	Get a Grip	Miles Epstein	Summa Cedar	Winter Chung
Physics: Mechanical	Honorable Mention	Investigating Pendulum Decay Rates Based on Length	Craig Weeks	Robert Gray Middle School	Katy Wagner- west
Physics: Mechanical	Honorable Mention	Resonant Bridge	Dylan Calhoun	Cedar Park Middle School	Winter Chung

Physics: Mechanical	Honorable Mention	Aspect Ratio and Lift in Glider Planes	Sarina Carlaw	Whitford Middle School	Jody Reeg
Plant Sciences	First Place	Compost for the Better: How do various compositions of soil and other nutrients affect the growth of Scarlet Runner Beans?	Caroline Lee	ACCESS	Alfonso Garcia Arriola
Plant Sciences	First Place	Acid Rain: Boon or Doom	Akash Chinthamani	Valley Catholic Middle School	Sarah Zinzer
Plant Sciences	Second Place	Which Fume Will Send Your Plant to Its Doom	Iesha Comia, Clara Ganz, Gabriel Navarro	St. Pius X School	Teresa Sebert
Plant Sciences	Second Place	What's Growing On? A Study of Tomato Plants and Pathogens	Veronika Kulik	Summa Whitford	Carolee Dearborn
Plant Sciences	Second Place	How Does the Gravitational Pull Direction Affect Plant Root Growth?	Rupert Li	Summa Cedar	Winter Chung
Plant Sciences	Third Place	Do radio waves affect plant germination rates?	Benjamin Fischer-Shane	Winterhaven Middle School	Wendy Archibald
Plant Sciences	Third Place	How does the wavelength of colored light affect the rate of photosynthesis?	Anya Dhall	Stoller Middle School	Kirk Koehler
Plant Sciences	Third Place	The effect of colored LED light on Dahilia growth	Erwin Kim	Portland Lutheran School	Douglas Moore
Plant Sciences	Third Place	What Color of Light do Black Beans Grow Best In?	Abby Schmidt, Hunter Shepersky	Athey Creek Middle School	Stephen Walsh
Plant Sciences	Honorable Mention	Tomato's Choice, acidic or basic	Hannah Lasky	Bridlemile Elementary School	Larry Sherman
Plant Sciences	Honorable Mention	Decomposition of Paper.	Dante Walls	Winterhaven Middle School	William Thompson
Plant Sciences	Honorable Mention	The Effects of Nanoparticles on Living Things	Ayra Mirza	Oregon Islamic Academy	Yusef Shari'ati

Plant Sciences	Honorable Mention	PIGMENTS IN TREE LEAVES	Caitlyn Jensen	Highland Park Summa Program	Sarah Weller
Plant Sciences	Honorable Mention	What is the Difference in Firmness Between Precooked Beans and Non Precooked Beans?	Aspen Slifka	Banks Junior High School	Tony Richeson
Plant Sciences	Honorable Mention	Do Flowers With Similar Colors have Similar Pigments?	Emily Pereles	St. Cecilia School	Amy Stephen

Special Awards

Special awards are offered by local and national organizations. Prizes range from certificates to cash awards or items.

Special Award	Award Sponsor	Title	Student List	Organization	Adult Sponsor
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Can Paper be used as Armor?	Cole Kesity, Lucas Hildahl, Colin Powell	Leslie Middle School	Michael Rockow
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Eggcellent Arches	Elise Brunk	Winterhaven Middle School	Wendy Archibald
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Magnetic Hovercraft	Skylar Killian, Alma Nye, Sami Woodring	Oregon Episcopal Middle School	Christopher Mader
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Magelv Technology	Matthew McWhorter	Mark Twain Middle School	Daniel Jamsa
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Pointe of Impact	Anna Horne	St. Cecilia School	Amy Stephen
Army Outstanding Middle School Project	Army Research Office, U.S. Army	Magnetic Shielding	Phillip Miller	Cedar Park Middle School	Winter Chung
City of Banks Exceptional Community	City of Banks	How Effective is Aluminum Sulfate	Mohammad Fraih	Oregon Islamic Academy	Yusef Shari'ati

Environmental Sensitivity Award		Precipitation of Waste Water Phosphate?			
City of Banks Exceptional Community Environmental Sensitivity Award	City of Banks	Water Filtration Methods and pH Levels in Our Local Watershed	Bailey Hand, Sandra Labate	Straub Middle School	Kelsey Miller
IEEE Special Awards	IEEE Oregon	Can a smartphone become dangerous to your ears?	Kellen Petersen	Summa Whitford	Carolee Dearborn
IEEE Special Awards	IEEE Oregon	Turn-Based Strategy Game (Including AI) in Python and Pygame	Kimberly Li, Kariessa Schultz	Summa Whitford	Carolee Dearborn
IEEE Special Awards	IEEE Oregon	Solar Power	Benjamin Amann	Highland Park Summa Program	Sarah Weller
IEEE Special Awards	IEEE Oregon	Effective Use of Gallium Antimonide Thermopiles for Intelligent Cooking and Fire Prevention	Shahir Rahman	Summa Stoller	Nick Badyrka
IEEE Special Awards	IEEE Oregon	Automating Robot Navigation	Theresa D'Silva	Summa Stoller	Todd Freiboth
IEEE Special Awards	IEEE Oregon	Radiation and Seed Growth	Genae Vanek, Avery Burn	Cascade Heights Public Charter School	Holly Denman
Innovative Engineering Award	National Society of Professional Engineers	An Arm that Moves Fluidly	Calvin McHenry	Rosemont Ridge Middle School	Theresa Ellis
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Reducing Water Disturbance with Ship Maneuvers	Sarah Khalil, Aden Kareem	Oregon Islamic Academy	Yusef Shari'ati
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Treating Lung Cancer: By Manipulating Epidermal Growth Factor Receptor	Nandini Naidu	Valley Catholic Middle School	Sarah Zinzer

		Signaling Pathways			
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	A Novel Biocompatible, Cost-Effective, Mechanically Resilient Medical Implant Material: Rearrangement of Polymeric Microarchitecture for Generation of Hydrophilicity Using Plasma Treatment	Arnob Das	Summa Stoller	Nick Badyrka
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Can Water Be Outperformed as a flame Retardant by Another Everyday Liquid?	Michael Talbert, Cyrus Gray	Athey Creek Middle School	Stephen Walsh
Naval Excellence in Science and Engineering Award	Office of Naval Research, US Navy and Marine Corps	Electromagnetic Generator in Solar Updraft Tower	Stuti-Garg Parsa-Aghel	Meadow Park Middle School	Tymon Emch
Naval Excellence in Science and Engineering Award	US Navy & USMC	Reducing Water Disturbance with Ship Maneuvers	Sarah Khalil, Aden Kareem	Oregon Islamic Academy	Yusef Shari'ati
Naval Excellence in Science and Engineering Award	US Navy & USMC	Treating Lung Cancer: By Manipulating Epidermal Growth Factor Receptor Signaling Pathways	Nandini Naidu	Valley Catholic Middle School	Sarah Zinzer
Naval Excellence in Science and Engineering Award	US Navy & USMC	A Novel Biocompatible, Cost-Effective, Mechanically Resilient Medical Implant Material:	Arnob Das	Summa Stoller	Nick Badyrka

		Rearrangement of Polymeric Microarchitecture for Generation of Hydrophilicity Using Plasma Treatment			
Naval Excellence in Science and Engineering Award	US Navy & USMC	Can Water Be Outperformed as a flame Retardant by Another Everyday Liquid?	Michael Talbert, Cyrus Gray	Athey Creek Middle School	Stephen Walsh
Naval Excellence in Science and Engineering Award	US Navy & USMC	Electromagnetic Generator in Solar Updraft Tower	Stuti-Garg Parsa-Aghel	Meadow Park Middle School	Tymon Emch
Outstanding Air Quality Project	Southwest Clean Air Agency	Heat and Greet	Subisha Sundaram	Rachel Carson Environmental Middle School	Rebecca Hall
Outstanding Aquatic Related Environmental Science Project	Lake Oswego Corporation	No Harm, No Fowl	Adam Nayak	Winterhaven Middle School	Wendy Archibald
Outstanding Geoscience Project	Association Of Women Geoscientists	Earthquakin' Wood Shakin'	Clare Kennedy, Alexandra Erwin	St. Pius X School	Teresa Sebert
Outstanding Geoscience Project	Association Of Women Geoscientists	Design of a Underwater Seismograph	Sydney Siemens, Harley Sirovyak	Class Academy	Jaime Mitchell
Outstanding Natural Resources Science Project	Pacific NW Research Station, USDA Forest Service	Development of Forest Fire Prediction Tool for the State of Oregon	Leo Deng	ACCESS	Alfonso Garcia Arriola
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	Science in E Flat Major - Music and Heart Rate	Madeline Ertischek	Bridlemile Elementary School	Larry Sherman
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	Do You Hear What I Hear?	Mariam Malik	Bonny Slope	Aneela Afzal
Outstanding Project by a 5th Grade Student	Pacific NW Society	Does air pressure affect a basketball's bounce	Sydney Wilkins,	Black Butte School	Sam Pierce

	for Coating Technology		Madeline Busick		
Outstanding Project by a 5th Grade Student	Pacific NW Society for Coating Technology	Weather or not it Flies	Josiah Butler	Cascade Heights Public Charter School	Holly Denman
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Development of Forest Fire Prediction Tool for the State of Oregon	Leo Deng	ACCESS	Alfonso Garcia Arriola
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	The Biofixation of Carbon Dioxide Using Coccolithophorid Algae	Andrea Bian, Helen Wong	Summa Whitford	Carolee Dearborn
Outstanding Project in an Atmospheric Science Exhibit	American Meteorological Society	Improving Air Quality in a Vehicle	Aditya Sharoff	Meadow Park Middle School	Tymon Emch
Outstanding Project in Water Quality	U.S. Geological Survey, Oregon Water Science Center	Current vs. Still	Drue Kutka, Anna Antaran	Rachel Carson Environmental Middle School	Rebecca Hall
Outstanding Project in Water Quality	U.S. Geological Survey, Oregon Water Science Center	A Novel Analysis of Inexpensive and Eco-Friendly Bio-adsorbents for the Removal of Ciprofloxacin pollutants in Surface Water	Naren Gaurav	Meadow Park Middle School	Tymon Emch
Outstanding Research in Psychology	American Psychological Association	How Clutter Affects Concentration	Amelia Comer, Amari vonBergen	Oregon Episcopal Middle School	Anna Rozzi
Outstanding Research in Psychology	American Psychological Association	Mom You're Not Listening To Me!!!!!! Can Sign Language Reduce Baby Tantrums?	Fetheya Alattar	Baker Web Academy	Manar Alattar
Outstanding Science or Engineering Project	U.S. Air Force	Heat and Greet	Subisha Sundaram	Rachel Carson Environmental Middle School	Rebecca Hall

Outstanding Science or Engineering Project	U.S. Air Force	Shooting for the Stars: Designing Rockets That Travel Farther and With More Efficiency	Nicole Miller	Summa Cedar	Winter Chung
Outstanding Science or Engineering Project	U.S. Air Force	Photoelectrochemical Water Splitting	Maxfield Parson-Scherban	Robert Gray Middle School	Katy Wagner-west
Outstanding Use of the International System of Units	U.S. Metric Association	amount of calories in burger	Melissa Tran	Summa Meadow	Susan Duncan
Outstanding Use of the International System of Units	U.S. Metric Association	Detection of Dinotefuran in Honey following Safari Insecticide Application	Raley Schweinfurth	Oregon Episcopal Middle School	Ryan Holland
Outstanding Use of the International System of Units	U.S. Metric Association	How Does Temperature Affect How Deep a Dent is Made in Metal? (Step 1 Towards Building an Iron Man Suit)	Tyler Greenwood	Summa Cedar	Winter Chung
Outstanding Use of the International System of Units	U.S. Metric Association	Photoelectrochemical Water Splitting	Maxfield Parson-Scherban	Robert Gray Middle School	Katy Wagner-west
Outstanding Use of the International System of Units	U.S. Metric Association	What is the best way to effect a hydraulics machines output force?	Rohan Press	Metro montessori middleschool	Jonathan Erickson
Project Best Illustrating Surgeon General's Health Recommendations	U.S. Public Health Service	Got Calcium? - The Effectiveness of Different Natural Remedies for Calcium Deficiency	Jessica Yu	Highland Park Summa Program	Sarah Weller
Taking the Pulse of the Planet	National Oceanic and Atmospheric Administration	Carbon Dioxide Emissions and Effects on Marine Creatures Dependent on	Geordie Tilt	Cedar Park Middle School	Winter Chung

		Calcium Carbonate			
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Diamagnetic Levitation of a Permanent Magnet over a YBCO Superconductor	Jasmine Guliani	Summa Meadow	Susan Duncan
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Development of Forest Fire Prediction Tool for the State of Oregon	Leo Deng	ACCESS	Alfonso Garcia Arriola
Tom Owen Award for Excellence in Statistics	Oregon Chapter of the American Statistical Association	Does an Irradiated or Washed Apple a Day Keep The Doctor Away???	Luka Perle, Skyler Gilbride	Bend Science Station	Danny Martin
Water Prize Award of Excellence	Water Environment Federation	Turn of the Turbine	Benjamin Tracy	Rachel Carson Environmental Middle School	Rebecca Hall
Water Prize Award of Excellence	Water Environment Federation	Oil Spills Spell Disaster	Dominic Funk, Derek Long	Visitation School	Mrs. Carol Funk
Water Prize Award of Excellence	Water Environment Federation	The Water Crisis	Mia Fast, Maeve Eynard	St. Pius X School	Teresa Sebert
Water Prize Award of Excellence	Water Environment Federation	Amount of ammonia and nitrates absorbed by the ceratophyllum demersum, limnobium spongia and marsilea mutica?	Valeriya Chulyukina	Summa Whitford	Carolee Dearborn
Water Prize Award of Excellence	Water Environment Federation	Determining the effects of Tapeworm (schistocephalus solidus) infection upon Stickleback (Gasterosteus aculeatus) behavior collected from a Central Oregon pond.	Raven Dow-Hygelund	Bend Science Station	Danny Martin

Water Prize Award of Excellence	Water Environment Federation	What's in Your Water? A Study of Portland Waterways	Hoda Abou Eich	Oregon Islamic Academy	Yusef Shari'ati
Water Prize Award of Excellence	Water Environment Federation	A Search for Cleaner Water: Incorporating Both Mechanical and Chemical Purification Technologies Into Water Filters	Harish Palani	Summa Stoller	Nick Badyrka
Water Prize Award of Excellence	Water Environment Federation	Trapping Strontium	Emma Yang	Summa Stoller	Todd Freiboth
Water Prize Award of Excellence	Water Environment Federation	A Novel Analysis of Inexpensive and Eco-Friendly Bio-adsorbents for the Removal of Ciprofloxacin pollutants in Surface Water	Naren Gaurav	Meadow Park Middle School	Tymon Emch