

**2014 South Sound Regional Science Fair
High School Overall Awards**

Place	Project Title	Name	School	District	Grade
First	Evolution of an Alternative Treatment for Candida Albicans Using Natural Plant Extracts	Surabhi Mundada	Olympia High School	Olympia	9th
Second	Strengthening Daphnia Magna's Resistance to poisoning caused by Copper Sulfate Pentahydrate	Elise Wilson	Sumner High School	Sumner	12th
Third	IoT (Internet of Things) connected Air Quality Monitor to detect and measure Particulate Matters concentration	Anjali Vasisht	Olympia High School	Olympia	9th
Fourth	Optimizing Quantum Dot Design to Maximize Solar Absorption of Quantum Dot Solar Cells	Sampath Duddu	Capital High School	Olympia	12th

High School: First Place Awards

Project Category	Project Title	Name	School	District	Grade
Animal Science	Strengthening Daphnia Magna's Resistance to poisoning caused by Copper Sulfate Pentahydrate	Elise Wilson	Sumner High School	Sumner	12th
Behavioral & Social Sciences	Multiplication Madness: An experiment on Online Versus Traditional Learning	Samantha Ward	Sumner High School	Sumner	11th
Cellular & Molecular Biology	Mesuring the Effects of Magnesium Sulfate and Betamethasone on Endothelial cell tight junctions	Maria Cesarini	Bellarmino Preparatory School	Private	12th
Energy & Transportation	Optimizing Quantum Dot Design to Maximize Solar Absorption of Quantum Dot Solar Cells	Sampath Duddu	Capital High School	Olympia	12th
Eng: Electrical & Mechanical	IoT (Internet of Things) connected Air Quality Monitor to detect and measure Particulate Matters concentration	Anjali Vasisht	Olympia High School	Olympia	9th
Environmental Management	Reducing Bellarmine Preparatory's Carbon Footprint by Generating Compost through Solar Power	Jacqueline Pecaro	Bellarmino Preparatory School	Private	12th
Environmental Sciences	A Study of Beach Erosion and How to Prevent It	Adam McCombs	Harrison Preparatory	Clover Park	9th
Medicine & Health Sciences	Evolution of an Alternative Treatment for Candida Albicans Using Natural Plant Extracts	Surabhi Mundada	Olympia High School	Olympia	9th
Microbiology	An examination of the effect of cleaning frequency of contact lens cases on the amount of bacteria found in the contact lens cases.	Dalton Owens	Wilson High School	Tacoma	9th
	If the Shoe Fits: An Experimentation on the Effects of Bacterial Populations Within a Residence that Regularly Does or Does Not Attire Footwear While In a Household.	Grace Prendergast	Wilson High School	Tacoma	9th
Physics & Astronomy	The Green Flash: Understanding Light Transmittance in the Ocean	Cecilia Black	Annie Wright Schools	Private	10th
Plant Sciences	The Verification of Root Rot on Species of True Firs	David Kurz	Sumner High School	Sumner	10th

High School: Second Place Awards

Project Category	Project Title	Name	School	District	Grade
Animal Science	Mycoplasma ovipneumoniae: evaluation of serum titers as a correlate of nasal shedding	Colin Wakefield	Sumner High School	Sumner	11th
Behavioral & Social Sciences	Math Sounds and Humans: Using Sound to Convey Information	Emma Taylor	Annie Wright Schools	Private	9th
	The Same in Every Language: The Effect of Facial Expressions on Responding Facial Expressions	Grace Drechsel	Wilson High School	Tacoma	9th
Eng: Electrical & Mechanical	Developing a Variable Frequency RC Phase Shift Oscillator Prototype and Addressing Limitations of Limited Frequency Stability, Feedback, and Voltage Output	Don Li	Capital High School	Olympia	11th
Environmental Management	Food Quality versus Water Quality: The Effects of Fertilizer on the Nitrate Levels in Groundwater	Micah Tate	Wilson High School	Tacoma	9th
Environmental Sciences	Comparative evaluation of the potential environmental impact of Zinc Oxide Bulk and Zinc Oxide Nanoparticles on Daphnia Magna and Lemna Minor	Nitya KrishnaKumar	Olympia High School	Olympia	9th
Medicine & Health Sciences	Invertigation of of Active Compounds in Ocimum sanctum Affecting the Cell Reduction of Klebsiella pneumonia and Yersina enterocolitica	Mehar Nallamalli	Capital High School	Olympia	10th
Microbiology	Artificial Selection and Resistance	Jared Berty	Washington High School	Franklin Pierce	12th
	Flying Microorganisms: The Effect of Vacuuming On the Amount of Airborne Microorganisms	Starla France	Wilson High School	Tacoma	10th
Physics & Astronomy	Skyglow Analysis Using a Digital Camera	Nicole Bach	W.F. West High School	Chehalis	12th
Plant Sciences	The Effect of Contrasting Protein Concentrations on the Total Biomass of Pisum sativum	Madison Lecce	Wilson High School	Tacoma	9th

High School: Third Place Awards

Project Category	Project Title	Name	School	District	Grade
Animal Science	Distribution and Characterization of Cancer productus in the Titlow Marine Preserve	Rachel Gonzalez	Bellarmino Preparatory School	Private	12th
		Molly Payne	Bellarmino Preparatory School	Private	12th
Behavioral & Social Sciences	Chew on This! The Effect of Spearmint Chewing Gum On Students Accuracy on Simple Subtraction	Kelli Quinlan	Wilson High School	Tacoma	9th
	The effect of a garbage receptacle present or not present in the central point of a parking lot on a high school student's littering behavior	Sydney Salling	Wilson High School	Tacoma	9th
Eng: Electrical & Mechanical	What is the effect of different colors and distances on the amount of light intensity given off through night vision goggles?	Amber Beck	Harrison Preparatory School	Clover Park	10th
Environmental Management	The Affect of Coffee Grounds and Nightcrawlers on the Amount of Nitrogen Present in Soil.	Thania Solis	Wilson High School	Tacoma	10th
Environmental Sciences	Lead Leeching in Real World Marine and Freshwater Environments: A 2-part Comparison	Tessa Thurman	Annie Wright Schools	Private	12th
Medicine & Health Sciences	Effect of Disinfectant on Trumpet Mouth Pieces	Chris Diaz	Wilson High School	Tacoma	10th
Microbiology	The affects of Acetic Acid on Staphylococcus	Taylor Ficca	Wilson High School	Tacoma	9th
	The Effect of Bacterial Colonies on Naturally Growing Grass or Synthetic Turf Sports Fields	Nora Riches	Wilson High School	Tacoma	9th
Physics & Astronomy	The Analysis of Blunt Force Trauma	Larissa Lindsay	W.F. West High School	Chehalis	12th
Plant Sciences	The effect of soil microorganisms on the growth of radish plants	Kelsie Jeffries	Wilson High School	Tacoma	9th

High School: Honorable Mention Awards

Project Category	Project Title	Name	School	District	Grade
Animal Science	Analysis of Microphotography Methods in the Examination of Live Crustacean Plankton	Molly Bordeaux	Bellarmino Preparatory School	Private	12th
		Erin McCune	Bellarmino Preparatory School	Private	12th
Behavioral & Social Sciences	Effect of Music Intensity on Color Perception	Aurora Hake	Annie Wright Schools	Private	9th
	The Effect of an Educational Fidget Toy on a Students Ability to Retain Information	Kirsten Grostick	Wilson High School	Tacoma	9th
Chemistry	Chemiluminescence	William Joy	Harrison Preparatory School	Clover Park	10th
	Stomach Trouble: A Study on How a Peppermint Starlight Candy Affects The pH Level of HydroChloric Acid.	Colton Berge	Wilson High School	Tacoma	9th
Eng: Electrical & Mechanical	The Gathering of Particles in the Earth's Stratosphere	Jacob Schneider	W.F. West High School	Chehalis	12th
Eng: Materials & Bioeng	Construction to Destruction	Jermaine Gilyard	Lakes High School	Clover Park	9th
		Kayla Sarver	Lakes High School	Clover Park	9th
	Rust Away - Essential Oils as Corrosion Inhibitors	Guy Alberts	Wilson High School	Tacoma	9th
	The correlation between proximities of Suburbia and Surface Water, Fire, and Mold	Hannah Dawson	Wilson High School	Tacoma	9th
Environmental Management	Lead the Way: The effect of textured surfaces on the removal of lead contaminants and soil from shoes	Alicia Long	Wilson High School	Tacoma	9th

High School Awards: Honorable Mention Awards (cont)

Environmental Sciences	Effectiveness of the Bellarmine Preparatory School Retention Pond in Removal of Suspended Solids	Brian Ward	Bellarmino Preparatory School	Private	12th
		Brennan Hartley	Bellarmino Preparatory School	Private	12th
	Your Slime Won't Save You Now...An Examination of How Contaminated Soil from the Tacoma Smelter Affects Land Snail Mass	Bryce Asberg	Wilson High School	Tacoma	9th
Medicine & Health Sciences	Sorry to Burst Your Bubble: The Effects of Hydrogen Peroxide and Isopropyl Alcohol on Bacterial Growth as	Anna Handford	Wilson High School	Tacoma	9th
Microbiology	How much bacteria do you actually intake?	Patrick Marlatt	Wilson High School	Tacoma	9th
	The effect of floss on the amount of bacteria on the gum line	Scotti Russell	Wilson High School	Tacoma	9th
	The Hazards of Shopping: The Effect of Utilizing Sanitizing Wipes Before Using Shopping Carts and How Much Bacteria is Transferred to the User's Hands	Alexandra Bunch	Wilson High School	Tacoma	9th
Physics & Astronomy	Stardust in your own back yard	Anthony Painter	W.F. West High School	Chehalis	12th
Plant Sciences	Testing Bio-control Agents in Potting Mixes for Suppression of Root Disease Caused By Phytophthora cactorum in Ornamental Container Nurseries	Elizabeth Jeffers	Bellarmino Preparatory School	Private	12th
		Tracey Trinh	Bellarmino Preparatory School	Private	12th