

---

# *Intel NWSE State High School Category Awards Press Report*

---

*Some of the students that participated in the Intel NWSE had already participated in one of 6 regional science expos around Oregon. Those students participated in the state fair on 4/1. Other students had no opportunity to participate in a regional fair in their area. They participated for awards in the NWSE At-Large regional fair on 4/1. Like all the students that participated in regional fairs, these students were also eligible for state fair awards if their projects were among the best in the entire fair. These students were judged simultaneously for the regional and state fairs.*

*For more information contact Stephanie Jones: 503-703-3590*

*HM = Honorable Mention*

---

## **Behavioral & Social Sciences**

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Beh	BE	Jacob Reisberg	Oregon Episcopal Upper School	( HS-BE-100) Tracking Eye-movements to Examine the Influence of Visual Bias on Eyewitness Examination of Police Photospreads
2nd Be	BE	Vanessa Esch	Skyview High School	( HS-BE-170) A State by State Analysis of the benefits derived from state lottery programs
3rd Beh	BE	Meryl Hulteng, Shannon Cassidy	Wilsonville High School	( HS-BE-254) Fingerprints and Gender

---

## **Biochemistry**

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Bio	BI	Sergio-Francis Zenisek	Oregon Episcopal Upper School	( HS-BI-032) Recombination of RNA in Compartmentalized Systems: An Origin-of-Life Study
2nd Bio	BI	Thomas Stout	Oregon Episcopal Upper School	( HS-BI-041) Unique Genes Expressed in Regenerating Hydra
3rd Bio	BI	Shane Walker	Lakeview High School	( HS-BI-086) USING BOVINE FECES AS AN ASPHALT BIOREMEDIATE

---

## **Botany**

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Bot	BO	Lue Ann Zaske	Klamath Union High School	( HS-BO-113) The Anti-Microbial Properties of Aphanizomenon flos-aquae, a Species of Algae from Upper Klamath Lake
2nd Bot	BO	Michael Olson, Chad Schlottmann	Gold Beach High School	( HS-BO-093) The Influence of Mycorrhizal and Fertilizer Treatments on Tree Seedlings in Fire-Affected Soils
3rd Bot	BO	Katie VanderWeele	Oregon Episcopal Upper School	( HS-BO-087) Removal of Arsenic from Drinking Water by Water Hyacinths

## Chemistry

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Che	CH	Thomas Chen, Sharat Ganapati	Skyview High School	( HS-CH-108) Atmospheric Chemical Instabilities
2nd Ch	CH	Da Lin	Westview High School	( HS-CH-141) Evaluation of cis-cis HOONO Production by Laser Photolysis through Modeling of Reaction Kinetics
3rd Ch	CH	Katie Herbage	Gold Beach High School	( HS-CH-105) Reduction of Cellulosic Fiber Flammability Using Aluminosilicates

## Computer Sciences

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Co	CO	Alan Pierce, Nate Broussard	Merlo Station High School	( HS-CO-022) Combining Text Recognition Methods for Increased Accuracy
2nd Co	CO	Solly Reisberg	Oregon Episcopal Upper School	( HS-CO-019) Using a Neural Network for Automated Analysis of Spectral Data
3rd Co	CO	Christina Phillips	Girl Scouts - Col. River Council	( HS-CO-034) Spend-A-Day scheduling at CCHS (Central Catholic High School)

## Earth Science

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Eart	EA	Alexa Carey	Gold Beach High School	( HS-EA-030) Effects of Fireline Construction on Soil Physical and Hydrological Properties
2nd Ear	EA	Maja Schling	Oregon Episcopal Upper School	( HS-EA-026) The frequency and intensity of hurricanes Have they increased because of global warming over the last hundred years?
3rd Ear	EA	Rocko Worth, Travis Kupetz	Bend Science Station	( HS-EA-032) Crystals Under Pressure

## Engineering

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Eng	EG	Philip Muñoz	Merlo Station High School	( HS-EG-102) Accelerated Angular Scanning in Holographic Data Storage
2nd En	EG	Kathryn King	McNary High School	( HS-EG-076) The Design and Construction of a Clinostat for Educational and Research Purposes
3rd Eng	EG	Marta Bryan	Bend Science Station	( HS-EG-117) Active infrared triggering and the migration patterns of Rana pretiosa

## Environmental Sciences

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Env	EV	Laura Street	West Salem High School	( HS-EV-177) Spores from the Great Basin Floors
2nd En	EV	Sheila Van Prooyen	Gold Beach High School	( HS-EV-141) Environmental Differentiation of Pinus contorta on Serpentine Soil
3rd Env	EV	Matthew McKinney, Cole Streiff	Oregon Episcopal Upper School	( HS-EV-169) An Inferential Study of the Efficiency of the Natural Filtration Process of the OES Wetlands as Determined by the Bioluminescent Capabilities of the Dinoflagellate Pyrocystis noctiluca.

## Large Team

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Lar	LT	Becki Phillips, Elizabeth Cooper, Samantha Taylor, Brian Johnson, Nick Devich, Adam Tate, Kyle Witcosky, Emma Paul, Brandon Parker	Oregon Episcopal Upper School	( HS-LT-032) A collaborative juxtaposition of past and present qualitative chemical data in the Oregon Episcopal School wetlands concerning phosphate, nitrate, heavy metals, pH, turbidity, dissolved oxygen, ammonia, and temperature.
2nd Lar	LT	Mary Warrington, Corinna Ace, Stewart Lawson, John Robinson	Oregon Episcopal Upper School	( HS-LT-048) Cactus Grafting
3rd Lar	LT	Shalana Haren, Miranda Mansfield, Seth Sacket, Chris Edwards	Marshfield High School	( HS-LT-041) Memory span and Retention

## Mathematics

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Mat	MA	Anarghya Vardhana	Jesuit High School	( HS-MA-033) Primality Testing: Utilizing Characteristics of Prime Numbers, that Allow for Optimal Deterministic and Probabilistic Primality Testing Algorithms in Polynomial Time
2nd Ma	MA	Matthew Tierney	Westview High School	( HS-MA-034) Finding Varieties in Nonlinear Systems using Algebraic-Geometry and Maple
3rd Mat	MA	Sun Jin Lee	Columbia River High School	( HS-MA-026) Essential and Non-essential Crossings and Their Implications in Knot Theory

## Medicine & Health

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Me	ME	Allison Rhines	Oregon Episcopal Upper School	( HS-ME-091) An Analysis of Brain Tissue Sections for Proteins Targeted by the Genotoxicant Methylazoxymethanol (MAM)
2nd Me	ME	Timothy Harris	Columbia River High School	( HS-ME-148) Glutamate's Role in Antinociceptive Processing within the Ventrolateral Periaqueductal Gray Matter of the Mesencephalon of the Rat
3rd Me	ME	Yufei Cao	Liberty High School	( HS-ME-131) Do Excess Levels of Androgens Inhibit Follicular Growth? A Monkey Model for Understanding Polycystic Ovarian Syndrome

## Microbiology

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Mic	MI	Julia Kim	Oregon Episcopal Upper School	( HS-MI-045) Antibacterial Properties of Essential Oils on Air Sterilization
2nd Mic	MI	Keenan Ferar, Brian Siperstein, Arnaud Sillis	Oregon Episcopal Upper School	( HS-MI-047) The Effects of Ozone, Sulfur Dioxide, Chlorine Bleach, Boiling Water, and Sodium Carbonate Peroxyhydrate on <i>Brettanomyces Bruxellensis</i> in an Oak Wine Barrel
3rd Mic	MI	Scott Saiget	Oregon Episcopal Upper School	( HS-MI-050) Optimizing Hydrogen Production from <i>Chlamydomonas reinhardtii</i>

## Physics

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Phy	PH	Mond Guo	Sunset High School	( HS-PH-199) What Factors Influence the Appearance of Scratch Holograms
2nd Ph	PH	Kelsey Dean, Courtney Bell	Wilsonville High School	( HS-PH-194) Softball Batting Techniques
3rd Phy	PH	Andrew Kushner, Jared Mueller, Nick Thiessen	Oregon Episcopal Upper School	( HS-PH-202) A Study of the Effect of Removing Valence Electrons on Half-Life of Beta Emission of Selected D-Block Nuclides

## Space Science

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Spa	SP	Jennifer Wolochow	Oregon Episcopal Upper School	( HS-SP-020) A Study of V380 Ori
2nd Sp	SP	Elyse Hope	Oregon Episcopal Upper School	( HS-SP-021) Creating a Novel Program for Determining the Three-Dimensional Movement Rates of Sunspots and Active Solar Magnetic Regions: Year 2
3rd Spa	SP	Megan Van Ness	West Salem High School	( HS-SP-031) Chaotic Terrian on Europa: Evidence for Hydrological Resurfacing

## Zoology

<i>Place</i>	<i>Category</i>	<i>StudentNames</i>	<i>School</i>	<i>Title</i>
1st Zoo	ZO	Liz Overton-Harris	Merlo Station High School	( HS-ZO-086) Role of Dynamic Filopodia in Embryonic Cell Adhesion
2nd Zo	ZO	Peter Stratis	Southridge High School	( HS-ZO-064) The Proximity of Rana catesbeiana Tadpoles Influencing Hyla regilla Egg Hatching Rate.
3rd Zoo	ZO	Michelle Fisher, Amber Shinsel	Westview High School	( HS-ZO-088) Chick Calls: Engineering A Device Programmed to Identify Specific Vocalizations of the Young Female Domestic Chicken (Gallus gallus domesticus)