

Schedule of Events

PRESENTATION TITLES

Calapooia Room

Session 1: Middle School Section A

- 8:40 AM** WHAT CAN MOLDS GROW ON? Annie Murray, Dustin Watson. Leslie Middle School.
- 8:50 AM** BALLOON EXPANSION. Maggie Chamberlain, Emma Brakebill. Leslie Middle School
- 9:00 AM** TORNADO IN A BOX. Whitney Pitalo, Katie Reeder. Leslie Middle School.
- 9:10 AM** HOVERCRAFT. Jonathan Myers, Dorian Moser. Leslie Middle School.
- 9:20 AM** JUMPING JELLYBEANS. AJ Dyer-Theis. Leslie Middle School.
- 9:30 AM** AERODYNAMICS. Thonia Martushev, Amelia Dobbes. Leslie Middle School.
- 9:40 AM** IS YOUR CELL PHONE DRIVING YOU INTO TROUBLE? Alex Ellison, Riley Wulf, Avery Ketchum. Leslie Middle School.
- 9:50 AM** CAN YOU OBTAIN WATER FROM INK ORANGE JUICE AND MILK? Ashlei Edgemon. Leslie Middle School.
- 10:00 AM** HOW DOES WIND SPEED EFFECT THE ELECTRICAL OUTPUT OF A WIND GENERATOR? Shaun Stice, Alex Ferry. Leslie Middle School.
- 10:10 AM** AIRFOILS/WIND TUNNEL. Anna Wiles. Leslie Middle School.

Session 2: Biology Section A

- 10:45 AM** ANALYZING STARCH GRAINS FROM THE NORTHERN GREAT BASIN PAIUTES. Courtney Klosterman. West Salem High School.
- 11:05 AM** COMPARISON OF DIFFERENT WASTES AS FERTILIZER. Emma Fontaine, Siri Erickson, Marina Bednarowski. Crescent Valley High School.
- 11:25 AM** EXPERIMENTAL STUDY IN FRAGARIA SALT TOLERANCE AND THE DEVELOPMENT OF A SALINITY RAPID LEAF ASSAY. Elliott Finn, Rob Livesay, Hanna Lorenz. Crescent Valley High School.
- 11:45 AM** EXPERIMENTAL STUDY ON EFFECT OF WATER POLLUTION ON CROPS. Melanie Young, Emily Simmons. Crescent Valley High School.

Schedule of Events

Session 3: Biology Section B

- 1:30 PM** IMPACT OF EXPOSURE HISTORY ON THE *BRASSICA JUNCEA* PLANT'S ABILITY TO PHYTOREMEDIATE COPPER SULFATE. Erin Bourdo, Natalie Lucker. Crescent Valley High School.
- 1:50 PM** STUDY OF THE EFFECTS OF HERBICIDES ON *SALVIA HISPANICA*. Libby Nousen, Weiyi Li. Crescent Valley High School.
- 2:10 PM** THE EFFECTS OF EXTREMELY LOW FREQUENCY (ELF) ELECTRIC FIELDS ON THE OLFATORY SYSTEM OF MADAGASCAR HISSING COCKROACHES (*GROMPHADORHINA PORTENTOSA*). Robert Tan. West Salem High School.
- 2:30 PM** THE EFFECTS OF LIGHT POLLUTION ON FLORA. Spencer Kisler, Lawson Wakeman. Crescent Valley High School.
- 2:50 PM** THE EFFECTS OF RECREATIONAL COCKLE RAKING ON THE INTER-TIDAL COMMUNITY. Tess Wheatcroft, Zach A. Peters, Tim J. Buchanan. Crescent Valley High School.

Session 4: Biology Section C

- 3:30 PM** THE EFFECTS OF WATERING RYEGRASS WITH VARYING SALINITY. Jane Ward, Caitlyn Doyle. Crescent Valley High School.
- 3:50 PM** THE EFFECTS OF ACUTE TESTING OF SALINITY ON *DAPHNIA PULEX*. Kari Lysne, Timothy Moss, Dana Wisseman. Crescent Valley High School.
- 4:10 PM** EXPERIMENTAL STUDY OF EFFECT OF FOREST FIRE ON TREE GROWTH AND WOOD QUALITY. Lipi Gupta, Molly Ward, Marissa Minato. Crescent Valley High School.
- 4:30 PM** THE OPTIMAL TEMPERATURE FOR THE ENZYME *TRICHODERMA REESEI* TO CONVERT CELLULOSE TO GLUCOSE FOR ETHANOL PRODUCTION. Roger Miller. Oregon Episcopal School.

Schedule of Events

Columbia A Room

Session 1: Alternative Energy Section A

- 8:40 AM** A STUDY ON THE EFFECTIVENESS OF LIQUID REPELLANT MATERIALS FOR USE ON SOLAR PANELS. Chris Gannon, Jordan Freeman, Greg Smith. Crescent Valley High School
- 9:00 AM** EFFECTS OF COLOR FILTERING AND TEMPERATURE ON SOLAR PANELS. Christian Collett, Douglas Pentland, Garrett Wells. Crecent Valley High School.
- 9:20 AM** ENERGY OUTPUT OF HOME-PRODUCED ETHANOL VS. LAB-GRADE ETHANOL. Jason Laird, Savannah Carrico, Amy Lee. Crescent Vally High School.
- 9:40 AM** EXPERIMENTAL STUDY ON MICROWAVE ENERGY AS A CATALYST FOR BIOFUEL PRODUCTION. Molly Gard, Brian Qian, Justin Rose. Crescent Valley High School.
- 10:00 AM** FUEL CELLS FOR SMALL ELECTRONIC DEVICES. Chase Sawyer. Skyview High School.

Session 2: Alternative Energy Section B

- 10:45 AM** HARVESTING WAVE ENERGY THROUGH THE USE OF PIEZOELECTRIC SENSORS. Madeleine King, Logan Cooper, Jamie Roberts. Crescent Valley High School.
- 11:05 AM** STABILIZING AND OPTIMIZING BUOY BASED WAVE ENERGY DEVICES BY INCREASING THE DISTANCE BETWEEN CENTER OF GRAVITY AND CENTER OF BUOYANCY. Carl Evans, Minsu Kwon, Logan Peterson. Crescent Valley High School.
- 11:25 AM** THE EFFECT OF TEMPERATURE ON A RECHARGEABLE ELECTROLYSIS BATTERY. Nick Vincent-Hill, Andy Vincent-Hill, Noah Baker. Crescent Valley High School.
- 11:45 AM** THE IMPACT OF WIND ON SALT DEPOSITION FOR COASTAL APPLICATIONS OF SOLAR PANELS. Molly Doran, Mackenzie Entrikin, and Kelsey Ward. Crescent Valley High School.

Schedule of Events

Session 3: Alternative Energy Section C

- 1:30 PM** THERMAL RECOVERY SYSTEM OF A SIMULATED INTERNAL COMBUSTION ENGINE. Luke Wadman, Jeff Borgerson, Ben Mahoney. Crescent Valley High School.
- 1:50 PM** AN EXPERIMENTAL STUDY ON PRODUCING ETHANOL FROM PREVIOUSLY UNTESTED CROPS. Lucinda Kahn, Kimberly Snider, Caitlin Gunn. Crescent Valley High School.
- 2:10 PM** WAVE ENERGY GENERATOR EFFICIENCIES. Steven Paasch. Crescent Valley High School.
- 2:30 PM** EXPERIMENTAL STUDY ON THE EFFICIENCY OF HARVESTING POWER FROM RAIN GUTTER DOWNSPOUTS. John-Nicholas Furst. Crescent Valley High School.
- 2:50 PM** FRUITS AND VEGETABLES AS BATTERIES. Kelsey Burkum, Ahzha Johnson, Hannah Smith. Crescent Valley High School.

Session 4: Alternative Energy Section D

- 3:30 PM** PERFORMANCE COMPARISON OF DYE SENSITIZED SOLAR CELL MODULES WITH CONSTANT TITANIUM DIOXIDE AREA DISTRIBUTED IN SERIES AND PARALLEL CONFIGURATIONS. Scott Harpool. Oregon Episcopal School.
- 3:50 PM** CONVERTING BIOMASS TO BIOFUELS USING PORTLAND LEAVES AS FEEDSTOCK. Eric Wilson, Michael Gale. Oregon Episcopal School.
- 4:10 PM** **NO PRESENTATION**
- 4:30 PM** **NO PRESENTATION**

Schedule of Events

Columbia B Room

Session 1: Environmental Chemistry Section

- 8:40 AM** DEAD ZONES. Lindon Powell, Evie Tatum, Jordan Iverson. Crescent Valley.
- 9:00 AM** ORGANIC VERSUS INORGANIC FERTILIZER. Zachary Derocher, Andrew Metzler. Crescent Valley High School.
- 9:20 AM** REGENERATION OF ACTIVATED CHARCOAL FOR REMOVAL OF HYDROGEN SULFIDE IN LANDFILL GAS STREAMS. Curtis Peterson, Raymond Ehlers, Sean Skyllingstad. Crescent Valley High School.
- 9:40 AM** THE EFFECT OF AMMONIUM SULFATE ON ALGAE GROWTH AND OXYGEN LEVELS. Andrea Higdon, Alison Herlihy, Garrett Egan. Crescent Valley High School.
- 10:00 AM** A SPATIAL ANALYSIS OF LAND USE AND AMMONIA WATER POLLUTION IN CORVALLIS, OREGON. Evan Wu, Yaeji Park. Crescent Valley High School.

Session 2: Water Quality & Tsunamis Section A

- 10:45 AM** AMMONIA PLUME REMEDIATION BY APPLICATION OF STRIPPING WELLS. Nathan Klammer, Jerry Luo, Luke Pebley. Crescent Valley High School.
- 11:05 AM** COMPARING WATER QUALITY OF AN URBAN CREEK, (DIXON) AND A RURAL CREEK, (JACKSON) IN CORVALLIS, OREGON. Julia Semprini, Jimmy Webber, Lillian Wu. Crescent Valley High School.
- 11:25 AM** EFFECTS OF DIFFERENT WATER PLANTS ON REMOVING POLLUTANTS FROM WASTEWATER. Nikki Angers, Kathy Lu, Rachel Kelly. Crescent Valley High School.
- 11:45 AM** EXPERIMENTAL STUDY ON FILTERING ARSENIC CONTAMINATED WATER WITH BIOMASS. Connie Shen, Robert Hollon. Crescent Valley High School.

Schedule of Events

Session 3: Water Quality & Tsunamis Section B

- 1:30 PM** EXPERIMENTAL STUDY ON REVERSE OSMOSIS DESALINATION. Alex Humphrey. Crescent Valley High School.
- 1:50 PM** STUDY OF TSUNAMIS EFFECTS ON CONCAVE COASTLINES FROM DIFFERENT DIRECTIONS. Todd Anderson, Garrison Choitz, Eric DeLander. Crescent Valley High School.
- 2:10 PM** TESTING WATER FILTER EFFICIENCY IN TERMS OF TOTAL DISSOLVED SOLIDS. Michael Trujillo, Ben Regubregt, Aaron Smith. Crescent Valley High School.
- 2:30 PM** WILLAMETTE RIVER WATER QUALITY. Luke Carlson. Crescent Valley High School.
- 2:50 PM** FECAL AND COLIFORM MATTER IN THE WILLAMETTE RIVER. Alyssa Amort Amanda Kindsvogel, Kelsey Kindsvogel. Crescent Valley High School.

Session 4: Water Quality & Tsunamis Section C

- 3:30 PM** MEGA-TSUNAMIS ARE NO ORDINARY WAVES THAT COME ASHORE. Danita Serafin. Skyview High School.
- 3:50 PM** AN EXAMINATION OF CHLORIDE DEPOSITION IN CONNATE WATER ISOLATED FROM SUBTERRANEAN ROCK DEPOSITS IN OREGON'S WILLAMETTE BASIN COMPARATIVELY RELATED TO THE CHLORIDE CONTENT OF PRESENT DAY OCEAN WATER. Kerry Streiff, Dennis Shi. Oregon Episcopal School.
- 4:10 PM** **NO PRESENTATION**
- 4:30 PM** **NO PRESENTATION**

Schedule of Events

Ochoco Room

Session 1: Physics Section A

- 8:40 AM** ALPHA AND BETA PARTICLES BLOCKED IN A CLOUD CHAMBER. Ashley Culver. Crescent Valley High School.
- 9:00 AM** AMATEUR CONSTRUCTION OF AN AIR POWERED ENGINE. Martin Hoogendijk. Skyview High School.
- 9:20 AM** CONCEPTUALIZATION AND RECONSTRUCTION OF THE ANTIKYTHERA MECHANISM IN CONTEXT. Anthony Nicolaysen, Sydney Kinzie. West Salem High School.
- 9:40 AM** CONSTRUCTION OF A SMALL SCALE RAILGUN AS A PROOF OF CONCEPT FOR LIQUID RAILS. Alex Edison. West Salem High School.
- 10:00 AM** INCREASING THE COMFORT OF A BALLET SHOE BY LESSENING THE FORCE. Sarah Lance-Joyce, Hannah Langley. Crescent Valley High School.

Session 2: Physics Section B

- 10:45 AM** LASER EFFICIENCY. Drew MacLurg. Skyview High School.
- 11:05 AM** MAXIMIZING ROTATIONS FOR AN ELECTRO-MAGNETIC GENERATOR. David Ward, Nehemiah Clark, Cylas Crannell. Crescent Valley High School.
- 11:25 AM** REDUCING ULTRAVIOLET RAYS EMITTED FROM FLUORESCENT LIGHT BULBS. Sara Killeen, Heidi Niu. Crescent Valley High School.
- 11:45 AM** SOUND TRANSMISSION AS A FUNCTION OF FREQUENCY IN WATER. Daniel Fridley, Heather Koenig, Robert Forkner. Crescent Valley High School.

Schedule of Events

Session 3: Physics Section C

- 1:30 PM** TRANSFERRING ELECTRICAL POTENTIAL VIA RESONATING COIL SYSTEM. Chanh Park, Payden Waldo. Crescent Valley High School.
- 1:50 PM** THE PLEASANTRY IN SOUND WAVES. Wesley Ballou. Skyview High School.
- 2:10 PM** BUILDING A SUBMERGED ENVIRONMENT INDEPENDENT MONITORING SYSTEM [SEIMS]. Matt Stickle. Crescent Valley High School.
- 2:30 PM** DETERMINING THE EFFECTIVENESS OF AERIAL INFRASOUND ARRAYS VERSUS LAND BASED SYSTEMS. Benjamin Lampert, Matthew Feltz. West Salem High School.
- 2:50 PM** DIMPLE SHAPE EFFECT ON WIND RESISTANCE OF A GOLF BALL. Van Fudge, Kelly Girouard. Crescent Valley High School.

Session 4: Physics Section D

- 3:30 PM** DOES BODY INVERSION INFLUENCE WEIGHT?: A PROBLEM IN FLUID DYNAMICS. Britta Berg-Johansen. West Salem High School.
- 3:50 PM** ANALYSING THE LIGHT CURVE OF Z ORI TO FIND ITS LINEAR SPEED AND COMPARING IT TO A SIN GRAPH. Opher Kornfeld. Oregon Episcopal School.
- 4:10 PM** VARIATION IN STAR FORMATION RATE FOR CLUSTERS CL1232.5-1250 AND CL1227.9-1138. Emily B Petroff. Oregon Episcopal School.
- 4:30 PM** WATER FROM AIR USING ACOUSTICS. Alexander C. Dennis. West Salem High School.

Schedule of Events

North Santiam Room

Session 1: Psychology & Behavioral Science Section A

- 8:40 AM** A DISCUSSION ABOUT EQUALITY: GENDER STUDY IN THE CLASSROOM. Jessie Cummins, Mary Patzel. West Salem High School.
- 9:00 AM** APPLYING THE MOZART EFFECT ON MICE. Emma James, Akshay Subramanian. Crescent Valley High School.
- 9:20 AM** REACTION TIME AND ITS RELATIONSHIP TO VIDEO GAMES. Matthew Hall. Skyview High School.
- 9:40 AM** THE EFFECT OF BACKGROUND MUSIC ON MEMORIZATION AND CONCENTRATION. Alexa Burks. Skyview High School.
- 10:00 AM** THE EFFECTS OF VIOLENT VIDEO GAMES ON MALE YOUTHS AGES 14-16. Mark Loika, Gavin Milligan, Drew Wolf. Crescent Valley High School.

Session 2: Psychology & Behavioral Science Section B

- 10:45 AM** THE IMPACT OF COLOR OF PAPER ON THE MEMORY OF AN ADOLESCENT. Andy Wu. Skyview High School.
- 11:05 AM** TESTING MNEMONICS IN HIGH SCHOOL STUDENTS. Kylie Sacco. Skyview High School.
- 11:25 AM** THE STUDY OF KINESTHETICS IN THE SCHOOL SYSTEM. Linda Moon. Skyview High School.
- 11:45 AM** PREDICTING A CORRELATION BETWEEN IRIS CRYPT FREQUENCY, INTELLIGENCE, AND PERSONALITY TYPE. Ryan Riches, Nicholas, Von Forester. West Salem High School

Schedule of Events

Session 3: Mathematics & Computer Science Section A

- 1:30 PM** ANALYSIS OF MAJOR FACTORS THAT AFFECT ILLICIT DRUG USER TREND IN UNITED STATES. Hong Ho. Skyview High School.
- 1:50 PM** MICRO PLASTIC POLLUTION ON THE OREGON COAST. Katie Keuneke, Kendall Dye. Crescent Valley High School.
- 2:10 PM** REAL-TIME ELECTION VERIFICATION USING RATE INTEGRATION AUDITING. Andrew Mintner. Tualatin High School.
- 2:30 PM** STATISTICAL ANALYSIS OF THE SOCCER FREE-KICK. Samuel Bradley-Kelly. Skyview High School.
- 2:50 PM** THE FUTURE MACROECONOMICS OF THE PETROLEUM INDUSTRY. M. Levi Mercer. Skyview High School.

Session 4: Mathematics & Computer Science Section B

- 3:30 PM** UNIQUE SIGNATURE GENERATION FROM NERVE IMPULSES. William Small. Skyview High School.
- 3:50 PM** USE OF COMPUTER IMAGING TO PRODUCE REALISTIC PHOTO SKETCHES. Frank Liu. Crescent Valley High School.
- 4:10 PM** ACCOUNTING FOR THE RISE AND DECLINE OF HOUSING PRICES WITHIN THE UNITED STATES. Anthony Lin. Catlin Gabel School.
- 4:30 PM** DESIGNING A POWER EFFICIENT CPU WATER COOLING SYSTEM. Neil P. Shah, Tyler Gakstatter. Crescent Valley High School.

Schedule of Events

South Santiam Room

Session 1: Health & Medicine Section A

- 8:40 AM** EFFECTS OF DIET ON RENAL FAILURE. Anna Cleveland. Skyview High School.
- 9:00 AM** ENVIRONMENTAL CONTAMINATION IN NECROPSY LABS. Victoria Trump Redd. Catlin Gabel School.
- 9:20 AM** INVESTIGATION OF ALLIUM SATIVUM, ARMORACIA RUSTICANA, AND TROPAEOLUM MAJUS AS NATURAL ANTIBIOTICS. Lacey Cochran, Beth Turner. Crescent Valley High School.
- 9:40 AM** OPTIMIZING PORE SIZE OF CELLULOSE/ POLYSULFONE NANOCOMPOSITE MICROFILMS FOR HEMODIALYSIS. Teresa Chan, Riti Gupta. Crescent Valley High School.
- 10:00 AM** STUDYING THE EFFECTS OF DMSO ON PRION DISEASE IN A YEAST MODEL. Rivfka Shenoy. Catlin Gabel School.

Session 2-a: Health & Medicine Section B

- 10:45 AM** THE LEVELS OF GLUCOSINOLATES FOUND IN PLANTS FOR CANCER RISK REDUCTION. Rachel White, Alice Heinz. Crescent Valley High School.
- 11:05 AM** LYSOSOMAL DYSFUNCTION IN RETINAL PIGMENT EPITHELIUM (RPE); A POSSIBLE PATHOGENESIS OF AGE RELATED MACULAR DEGENERATION? Patrick Chen. Oregon Episcopal School.
- 11:25 AM** **NO PRESENTATION**

Session 2-b: Chemistry Section A

- 11:45 AM** CHEMICAL OPTIMIZATION OF SOLID ROCKET FUELS. Andrew Read, Dan Woodman. Skyview High School.

Schedule of Events

Session 3: Chemistry Section B

- 1:30 PM** EVALUATION OF HDPE LANDFILL LINER PERMEATION. Brian Lach, Patrick Yun. Crescent Valley High School.
- 1:50 PM** FILTERING CO₂ WITH A SPONGE AND DIFFERENT TEMPERATURES OF WATER. Annisa Goss, Anne Wynn, Hillary Bender. Crescent Valley High School.
- 2:10 PM** PROGRESS OF REMEDIATION OF COPPER THROUGH GROWTH STAGES OF GRAMINEAE. Brandon C. Poole, Aaron M. Davis, Rachel Adamski. Crescent Valley High School.
- 2:30 PM** THE EFFECT OF FLUORESCENT BULBS ON PHOTO-OXIDATION IN MILK. Melanie Parnon, Scott Messer. Crescent Valley High School.
- 2:50 PM** THE EFFECTS OF HEAT ON SOIL CARBON DIOXIDE PRODUCTION. Harrison Fontaine, Matt Galvin. Crescent Valley High School.

Session 4: Chemistry Section C

- 3:30 PM** TIE DYE: NATURAL AND SYNTHETIC FIBER ABSORPTION (COTTON VS. COTTON/POLYESTER BLEND). Diana Chen, Emily Jones, Valerie Cleland. Crescent Valley High School.
- 3:50 PM** EFFECT OF ELECTRIC FIELD ON POTASSIUM SULFATE CRYSTAL GROWTH. Katherine Lownsbery. West Salem High School.
- 4:10 PM** PHOTOACTIVE POLYMER FILMS FROM INTERFACIALLY POLYMERIZED PORPHYRIN AND PHTHALOCYANINE DERIVATIVES. Brian Davis McCarthy. Liberty High School.
- 4:30 PM** THE IDEAL CATALYTIC PROMOTER FOR DIRECT CONVERSION FROM METHANE TO ACETIC ACID. Joshua Dreyzen. Oregon Episcopal School.

Schedule of Events

Willamette Room

Session 1: Microbiology Section A

- 8:40 AM** A STUDY OF THE EFFECTS OF ACTIVE AND OF INACTIVE CRYSTALLINE PAPAIN ON THE PROPAGATION OF ESCHERICHIA COLI. Benjamin Lee. Catlin Gabel School.
- 9:00 AM** COMPARISON OF HYDROCARBONS FROM NATURAL AND LAB GROWN RESOURCES. Inis Hsieh, David Ni, Margaret Yeh. Crescent Valley High School.
- 9:20 AM** EFFECT OF NITROGEN PHOSPHORUS RATIOS ON ANABAENA FLOS-AQUAE. Spenser Vines. Skyview High School.
- 9:40 AM** EFFECTS OF ALGAE ON THE ABSORPTION OF CO₂ OVER A BOILER ROOM. Matt Smouse, Laura Beaudry, Lisa Thompson. Crescent Valley High School.
- 10:00 AM** ERADICATION OF ESCHERICHIA COLI FROM CONTAMINATED PRODUCE THROUGH VACUUM TREATMENT. Andy Fortner, Krista Kloppenburg. Crescent Valley High School.

Session 2: Microbiology Section B

- 10:45 AM** INVESTIGATION INTO THE EFFECTS OF NITROGEN LEVELS ON LIPID PRODUCTION. Samantha Day, Jordan Evans, Michael Woffendin. Crescent Valley High School.
- 11:05 AM** INVESTIGATIONS OF FRACTAL GROWTH IN BACILLUS SUBTILIS COLONIES. Lizzie Wulf. Skyview High School.
- 11:25 AM** STERILIZATION OF WATER USING A SAND FILTER AND UV LIGHT TO KILL ESCHERICHIA COLI. Kendra Swafford, Sarah Faddis. Crescent Valley High School.
- 11:45 AM** STUDY ON REDUCING E.COLI BACTERIA IN WATER USING UV LIGHT. Alexandra Harrington, Cody Simas. Crescent Valley High School.

Schedule of Events

Session 3: Middle School Section B

- 1:10 PM** SEATBELT SAFETY. Luke Scheuermann. Leslie Middle School.
- 1:20 PM** COLA AND MENTOS GEYSER. Andrew Soltesz, Bailey Ross. Leslie Middle School.
- 1:30 PM** MAGNET ENHANCED WIND POWER. Madison Hall. Leslie Middle School.
- 1:40 PM** FRICTION. Malik Taylor, Kyle Campbell. Leslie Middle School.
- 1:50 PM** CURRIE POINT. Tyler Withers, Dean French. Leslie Middle School.
- 2:00 PM** PAPER AIRPLANE GLIDING ABILITY. Andrew Nielsen, Brent Flentje, Ryan Wilson. Leslie Middle School.
- 2:10 PM** ELECTRIC FRUIT. Anna Sieber, Samantha Shuba. Leslie Middle School.
- 2:20 PM** HOT METAL. Kody Westphal. Leslie Middle School.
- 2:30 PM** FINDING HYDROGEN IN LIQUIDS. Stephanie Gates, Cara McCann. Leslie Middle School.
- 2:40 PM** GUMMY. Sara L Rockow. Scott Elementary School.
- 2:50 PM** SOUND WAVES. Isabellah von Trapp, Kelsey Dammerell. Leslie Middle School.
- 3:00 PM** **NO PRESENTATION**

Session 4: Microbiology Section C

- 3:30 PM** THE EFFECTS OF METAL COMPOUNDS ON THE GROWTH RATE OF E. COLI. Tara Kumar. Catlin Gabel School.
- 3:50 PM** ANALYSIS OF THE RATE OF BIODEGRADATION OF BIODEGRADABLE PLASTICS IN DIFFERENT ENVIROMENTS. Jeremy Schultz, Zach Rifai, Chuck Caster. Crescent Valley High School.
- 4:10 PM** THE EFFECT OF DIFFERENT ELECTRON DONORS ON BACTERIAL GROWTH FOR BIOREMEDIATION. Laurie Rumker. Oregon Episcopal School.
- 4:30 PM** THE EFFECT OF NITRATES ON THE GROWTH OF *DROSER* *CAPENSIS* AND *SARRACENIA PURPUREA*. James Kempzell. Oregon Episcopal School.