

Registration Information

How to select workshops

Choose three workshops from each column: A, B and C, for a total of nine choices for workshops. *We will do our best to honor your request but since this is not always possible, you may have a totally unexpected opportunity.*

Parents in Classrooms

During the conference, parents should plan to attend the parent workshop (or the time could be used to explore local shopping and restaurants). We aim to minimize all distractions in the classrooms; we also ensure that all adults in the workshops have gone through background checks. If a parent needs to accompany their daughter in the workshops, we ask that they receive advanced permission from the organizers.

Parent pickup

Please pick up your student at 2:10 p.m. in the Student Union, Bldg. 27.

Fees

The conference fee is \$15. This includes all materials, conference T-shirt, and a light lunch consisting of a small sandwich and chips. *Due to the size and nature of this event we are unable to accommodate dietary restrictions. Please bring an alternative lunch if necessary.* Parent Workshop is an additional \$15. All fees are non-refundable. Scholarships are readily available thanks to funding from our sponsors.

How to register

Pre-registration is required for both students and parents. There will be no on-site registration. **Register online at www.thurstonEYH.org** with payment via credit card. Or register via mail, sending this completed registration form along with your check to *Expanding Your Horizons*, P.O. Box 4254 Tumwater, WA 98501. Register as soon as possible; student and parent workshops fill up on a first come, first serve basis. The deadline to register is March 2. Confirmation will be made by e-mail only.

Additional conference materials

Each student will receive an information packet on the day of the conference.

Special Accommodation

To request special accommodations call Joy Ramstack Hobbs 651-895-7673 or Katya Miltimore 360-550-8511

Student Registration Form

☐ Check box if scholarship is requested

☐ Check box if you are a returning EYH participant

Name: _____

Phone: _____

Address: _____

City: _____ Zip Code: _____

School: _____ Grade: _____

Indicate your first nine choices for workshops by putting the workshop letter and number in the blanks provided.

Column A #1 _____ #2 _____ #3 _____

Column B #1 _____ #2 _____ #3 _____

Column C #1 _____ #2 _____ #3 _____

Parent's E-mail: _____

(for registration confirmation)

Parent Workshop Registration Form

☐ Check box to request a scholarship

☐ Check here if special assistance is needed

Name: _____

E-mail: _____

We need your help. Let us know if you are interested in joining EYH to help plan future conferences by printing your name and contact information here:

Register online at www.thurstonEYH.org

Photos and video will be taken during the conference. These materials may be used for promotional purposes. Please contact Joy at chair@thurstonEYH.org if you have any concerns.

Phone: Joy Ramstack Hobbs 651-895-7673
or Katya Miltimore 360-550-8511

Web: www.thurstonEYH.org. **Watch for updates!**

E-mail: info@thurstonEYH.org

Find us on Facebook: www.facebook.com/ThurstonEYH

South Puget Sound Community College
2011 Mottman Rd. SW, Olympia, WA 98512
Campus map: www.spscc.edu/map-and-directions

Day of event contact number: 651-895-7673 or 360-550-8511

Directions to Main Campus

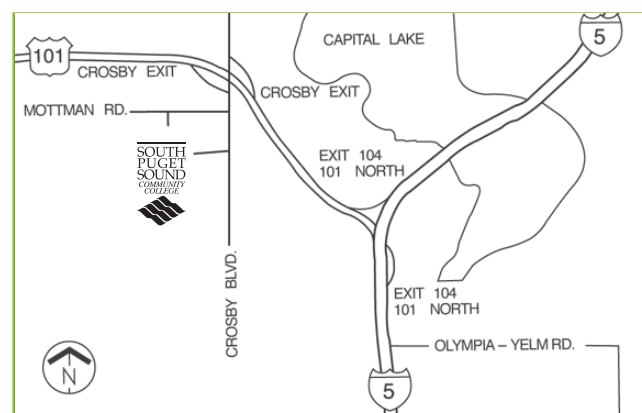
From I-5

- North or South
- Take Exit 104
- Take first exit on RIGHT - Cooper Point Rd. Crosby Blvd.
- From exit ramp turn LEFT
- At second light, turn RIGHT onto Mottman Rd.

From Highway 101 from Shelton/Aberdeen

- Take Cooper Point Rd. Crosby Blvd. Exit
- From exit ramp turn RIGHT
- At light turn RIGHT onto Mottman Rd.

Main entrance is the first left off Mottman Rd. Conference signs will guide you to parking and the Student Union (Bldg. 27). Please pick up your student at 2:10 p.m. in the Student Union Building.



2019 Conference Program

SCIENCE, TECHNOLOGY, ENGINEERING & MATH CONFERENCE FOR GIRLS IN 6TH, 7TH & 8TH GRADE

**SATURDAY
MARCH 9, 2019**

AT SOUTH PUGET SOUND COMMUNITY COLLEGE



Telissa Wilson



Tiffany Bachtel

CONFERENCE KEYNOTE: EXPLORING THE DEEP SEA

Telissa M. Wilson has participated in multiple deep sea research cruises as a part of her graduate research on gelatinous organisms called ctenophores. In addition to researching ctenophores, she is also a molecular biologist for the Washington State Department of Agriculture.

Tiffany Bachtel is a Master of Environmental Studies graduate student and DEEPC researcher at The Evergreen State College. They will be sharing their experiences exploring the deep sea, and introducing us to the strange and beautiful creatures they have studied.

Organizing Committee

Susie Bautista
Sarah Clarke
Leatta Dahlhoff
Nancy Deakins
Mary de Jesus

Samantha Dotson
Shannon Glenn
Kelly Green
Christine Hoffmann
Katya Miltimore*

Gwen Morris
Kelsea Overman
Kylie Phillips
Joy Ramstack Hobbs*
Meena Sambandam

Sophia Santos
Roshawna Sloan
Smriti Somasundaram
Aryn Thomas
*Co-chairs

The school district is not a sponsor of this event and assumes no responsibility for it.

Conference Presenting Sponsor:



Conference Silver Sponsors:



HARLEQUIN



Conference Partner:



STUDENT WORKSHOP CHOICES

COLUMN A

A-1 Scratch Programming - Build a Maze Game

Put your Scratch skills into action! Learn to make a classic Maze games in Scratch.

Smriti Somasundaram, Student and Founder of DOT4Kids

A-2 Disease Detectives

Do you like a good mystery? Well, an epidemiologist's job is all about solving mysteries, but instead of figuring out "who did it" like a police detective would, they figure out "what caused it." Come use your critical thinking and logic to investigate what it takes to protect the public's health and track down an outbreak.

Elisabeth Long, Epidemiologist, WA State Dept of Health

A-3 Life's a Beach!

Come experience a day in the life of a Beach Naturalist! Perform a beach transect and explore our Puget Sound wildlife specimens found on local beaches. This beach adventure is sure going to be a blast!

Amanda Newson, Lead Beach Naturalist, Puget Sound Estuarium

A-4 Forensics and Fingerprints

Become a Forensic Scientist for a day! Learn about crime scene investigation, DNA/blood spatter, and fingerprints! Roll your own fingerprints to discover how much information is literally at your fingertips, and how unique you truly are!

Angela Hilliard, MFS, CLPE, Forensic Scientist 3/Latent Print Examiner, WA State Patrol

A-5 Light-reflected and Redirected!

We will be looking at single and multiple reflections. Mirrors, kaleidoscopes and periscopes.

Jayna Williams, LC, Lighting Designer

A-6 Chemistry in Your World: Redox Reactions

Redox reactions are occurring everywhere in the world around us, and power everything from our bodies to our phones. Come learn about the fundamentals of redox chemistry, and the importance of this chemistry to our everyday lives. Explore some of the many applications, including electroplating of jewelry and other materials.

Brandy Fox, PhD, Assistant Professor & Chemistry Students, Saint Martin's University

A-7 You Just Won \$10,000!!!

What if you just now won \$10,000? What would you do with it? What could you do with it? What is \$10,000 really worth anyway? No matter how much money you make or how old you are, it is important to understand how to manage your finances. Come join us as we engage in interactive, hands-on discussions about money and budgeting!

Crystal Flaten, Financial Examiner, WA Dept. of Financial Institutions

A-8 Can you see the Polar Bear?

Did you know that Polar Bears cannot be seen with an Infrared Camera? Do you know what Infrared is? Let's explore answers to these questions together.

Rebecca Sundermann, Ph.D., Member of the Faculty in Chemistry, The Evergreen State College

A-9 Chocolate Asphalt

How is a road made? What properties are important? Learn about road-building and blacktop paving by simulating the process with chocolate pavement. Warning: nuts will be used and eaten during the course of this workshop.

Nanette Graham, P.E., Director, Capital Planning & Development – WA State Dept. of Corrections

A-10 Psst...did you know that cavities are contagious?

Did you know that a "clean" tooth has between 1,000 to 100,000 bacteria living on each tooth surface. Explore the fascinating world of dentistry and oral health. Learn some dental anatomy and how dentists find and treat a variety of oral health issues.

Caitlin Gomez, DMD, Dentist, Sea Mar Community Health Centers

A-11 Your Body's Wall of Protection

Did you know that hair and nails are classified as appendages of the skin? Explore the various functions of the skin and how it provides protection for the body by making natural remedies to prevent and/or treat acne and pimples.

Gwen Morris, Clinical Compliance Auditor, Cas Of Cary, Inc.

A-12 Spark the Heart!

Can you revive a dead heart? Use CPR and the latest emergency medical tools to treat a cardiac arrest. See a demonstration of an Automatic External Defibrulator (AED).

Cori Spotts, Firefighter/Paramedic, & Jessica Johnson, Firefighter/EMT - Lacey Fire District 3

COLUMN B

B-1 Mind Mapping and the 5 Why's

We'll take you on a journey of discovery that will uncover the best ideas ever! We'll take risks by experimenting, discovering, brain storming, mind mapping. We'll learn why no one of us is as smart as all of us. When there's something wrong with your project your experiment your gizmo ask the 5 Why's! Strategies for problem solving, creating new ideas, getting everyone together to get started on that group project, and generating creative energy!

Erika Anderson, IT Project Manager, DSHS Children's Administration

B-2 Training Dogs to Save Endangered Wildlife

Discover how dogs are being trained to save endangered species and catch wildlife smugglers and poachers all over the world. It all starts with a simple "click".

Lauren Wendt, Detective, WA Dept. of Fish & Wildlife

B-3 Strong Girls = Strong World

Do you get stressed out? Do you have daily calming practices to support you? We can help! We will share in an opening circle followed by meditation and breath work with sound healing, gentle yoga and other self care tools to support you so you can feel grounded and empowered. All Welcome, Girl Power Rocks!

Kristen Rubis, Executive Director, Empowerment 4 Girls

B-4 Do You Hear What I Hear?

Hearing keeps us connected with the world around us. Audiology combines the science of sound, and hearing, with helping people to communicate better. Audiologists test for hearing and balance and make recommendations that can help these people stay connected with the world around them. We combine technology and education to accomplish our goals of improving hearing and communication. Come learn about some of the different parts of audiology and the tools we have to care for our patients!

Jessica Hesson and Sarah Yahrmatter, Audiologists, Ascent Audiology & Hearing

B-5 Decoding Starlight: What Do Those Colors Tell Me?

Students will learn how the H-R Diagram and emission spectra are used to classify stars and determine the elements they contain. Emission bulbs will be viewed through diffraction gratings to see the chemical fingerprints of several common elements.

Kathleen Ensenat, Professor of Physics and Astronomy, South Puget Sound Community College

B-6 Money Talks!

Is your money always saying "Goodbye?" In this interactive workshop, you will learn the basics of budgeting, as well as helpful tips on saving money. Start saving now and your wallet will thank you!

Amanda Stevens, Community Development Manager - TwinStar Credit Union

B-7 Counting Clams?

How do the tribes, research scientists and resource managers conduct shellfish population surveys? Why are they important and who is involved? Come find out at this workshop that includes acting, shellfish ID, survey techniques, math, and Swedish Fish.

Aimee Christy, Research Scientist, Pacific Shellfish Institute

B-8 Under Pressure!

The deep sea is a cold, perpetually dark, and extremely high pressure environment. Please join us to learn about the amazing animals we collect using trawls, scuba, and submersibles. Students will be able to see footage from our last research cruise and get hands on experience using an instrument capable of creating pressures equivalent to 6000 meters depth.

Telissa Wilson, Biologist, WA State Dept. of Agriculture & The Evergreen State College(TESC)

Tiffany Bachtel and Joanna Froehlich, Graduate Research Assistants TESC

B-9 Save the Planet – One Step at a Time

How much of your personal greenhouse gas emissions are due to where you live? How much are due to what you eat, or what you buy? Measure your own carbon footprint, and find out how to make it smaller.

Donna Albert, P.E., Energy Engineer & LEED Accredited Professional - WA State Dept. of Enterprise Services

B-10 Chemistry in Art

Come explore the connection between chemistry and art. We will investigate the chemistry behind photography, color, and how pigments interact with different media. You will make a piece of art to take home.

Marie Dunn, Professor of Chemistry & Undergraduate Research Students, South Puget Sound Community College

B-11 Dental Assisting - The Art of Teeth

Explore taking dental x-rays, molding dental composite filling material into sculptures, and making thumb molds with dental impression material.

Evelyn Harry, EFDA, CDA, AAS, Clinic Dental Assistant and Student Supervisor, Dr. Dana Larson, DDS, Dental Assisting Program Director, Laura Moe-Genther, Dental Assisting Professor, and Tiffany Johnston, Dental Assistant- South Puget Sound Community College

B-12 Scents for Slime

Scents can make slime more satisfying and enjoyable. Find out how knowledge of chemistry, botanicals, and imagination can be used to create scents for slime.

Susie Bautista, Flavor Chemist at FlavorScientist.com

COLUMN C

C-7 Veterinarian Survival Skills

Students will learn to scrub in for surgery, recognize common toxic plants for cats and dogs (some for horses too!), and bandage a leg! These are some of the basic necessities to being a veterinarian or a veterinary technician.

Hannah Robertson, Doctor of Veterinary Medicine, Chambers Prairie Veterinary Hospital

C-8 Get Out of My Hair! Toxics in Personal Care

Did you know that the ingredients in personal care products like shampoo, lotion and makeup get inside our bodies? In this workshop, you'll learn how to read labels to make safer choices and learn how to make (and take home!) your own all natural lip balm.

Elisa Sparkman & Jennifer Johnson, Education & Outreach Specialists - Thurston County Public Health and Social Services

C-9 Power Brain Training

Learn how to power up your brain for better focus, stronger memory and faster thinking to lower your stress and be your best.

Linda Terry, Brain Trainer/STEP Founder, STEP – Sharing Teens and Elders Project

C-10 A Breath of Fresh Air - Weather, Air Quality and You

What is air pollution and where does it comes from? Think you know? You might be surprised. Also learn how weather affects air quality and what you can do right now to keep your air clean.

Lauren Whybrew, Engineer 1, and Allie Feidt, Air Quality Specialist 1, Olympic Region Clean Air Agency

C-11 Eyes Under Puget Sound

Ever wonder what types of creepy crawlies lurk in the mud beneath the waters of Puget Sound? Learn how marine scientists identify theses fascinating marine invertebrates. Use a microscope and get up close and personal with worms, sea stars, clams, crabs and more!

Dany Burgess & Angela Eagleston, Marine Taxonomists, WA State Dept. of Ecology

C-12 Robots Can Line Dance

Become a creator of technology not just a user. Learn how to use simple computer programming to make domobots synchronize their movements into a wave or dance routine.

Jennifer Mettler, NBCT, 8th Grade Science & Robotics Teacher, Marshall Middle School

C-1 Sustainable Fish Farming:

From Egg to Plate, & the Science in Between

Explore the life cycle of steelhead rainbow trout. Experience a live demonstration counting sperm with a Photospectrometer, view cells under a microscope, see fish at various stages and how their waste water is processed. Learn about the importance of farming and sustainable aquaculture. Salmon will be available to eat during this workshop.

Leila Zheng, Bridge Engineer, and Rachel Boylan, Civil Engineer, HDR, Inc.

C-2 See the Rainbow: Captivating Chromatography

Forensic drug chemists need to be able to identify and separate substances. One way this is achieved is through chromatography. Come do some hands-on investigation to see how this technique works and how we use it in the laboratory!

Lyndsey Knoy and Olivia Ross, Forensic Scientists, WA State Patrol

C-3 Telling your Story... with Data!

You've learned all the science, now you want to share it, teach it, present it, or show your results. Microsoft Word and Excel can get you there! This is not your boring typing class; Enter, calculate, and format data in Excel and format text as well as insert graphics and clip art for flyers in Word! Karen Hall, Projects and Facility Manager, Building Industry Association of WA

C-4 Beat the Heat!

The concept of heat transfer is crucial in engineering design. Come learn about the three modes of heat transfer, conduction, convection, and radiation and why they are so important!

Shelbie Davis, M.M.E., Lab Instructor, School of Engineering, Saint Martin's University

C-5 Rescuing and Rehabbing Wild Birds

What happens when someone finds an injured or orphaned bird? Learn how wildlife rehabilitators capture and restrain birds, perform physical exams, administer fluids, apply splints and bandages, review x-rays, run diagnostic tests, and condition birds for release. Warning: Bird carcasses will be used during this workshop.

Stephanie Estrella, Wildlife Rehabilitator, Raindancer Wild Bird Rescue

C-6 Mighty Microbes

Join us for a fun workshop about how the LOTT Clean Water Alliance cleans and recycles wastewater. Women working at the treatment plant will talk about their clean water jobs and how they got started in their career. Then put on your lab coat and gloves for a hands-on microscope lab to see some cool microorganisms up close! If you're lucky you'll find a tardigrade!

Amber Smith, Education Program Manager

Laurie Pierce, Operations & Facilities Director

Michelle Barnett – Engineering Tech/Construction Manager

Terri Prather, Process Control/Environmental Compliance Supervisor

Meghan Feuk – Water Quality Analyst II

All with LOTT Clean Water Alliance

PARENT WORKSHOP: ADVICE TO HELP IGNITE YOUR DAUGHTER'S FUTURE

Our 2019 conference offers a workshop that gives practical advice for parents as they guide their daughters on the journey from middle school to high school to college & career. These are critical and exciting times so we highly encourage your participation in the parent workshop!

Please register early – this workshop fills to capacity quickly!

The Agenda:

College Planning with SPSCC

South Puget Sound Community College staff will share free community resources on campus, academic and non-academic ways to prepare your child for higher education, college funding source options, and dual enrollment opportunities in high school.

Voice: raising middle school girls to speak for their minds and bodies in the #metoo era.

Come hear parent coach Emily McMason talk about how we can support girls during these formative years.

2019 Workshop Schedule

TIME	STUDENTS	PARENTS
9:00 – 9:30	Check-in/Registration (Student Union, Bldg. 27)	
9:30 – 9:50	Opening Ceremonies (Student Union, Bldg. 27)	
10:00 – 10:50	Workshop 1 (Various)	College Planning, Part 1
11:00 – 11:50	Workshop 2 (Various)	College Planning, Part 2
12:00 – 12:30	Break and Light Snack (Student Union, Bldg. 27)	
12:40 – 1:30	Workshop 3 (Various)	Workshop with Emily McMason
1:40 – 2:10	Keynote presentation by Telissa Wilson and Tiffany Bachtel Wrap Up and Prizes (Student Union, Bldg. 27)	
2:10	Please pick up your student (Student Union, Bldg. 27)	