

## 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.

### Parent pickup

Please pick up your student at 1:40 p.m. in the Gym, Bldg. 31.

### Fees

The conference fee is \$12. This includes all materials and snacks. The Parent Workshop is an additional \$12. All fees are non-refundable. Scholarships are available.

### 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](http://www.thurstonEYH.org) with payment via Paypal or 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 February 24. Confirmation will be made by e-mail only.

### Additional conference materials

An information packet will be given to each student on the day of the conference.

### Special Accommodation

To request special accommodations call Katya at 360-550-8511.

Photos will be taken during the conference. Please contact Katya at [chair@thurstonEYH.org](mailto:chair@thurstonEYH.org) if you have any concerns.

## 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 Gym Building (Bldg. 31).

Please pick up your student at 1:40 p.m. in the Gym.

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

Day of event contact number: 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)

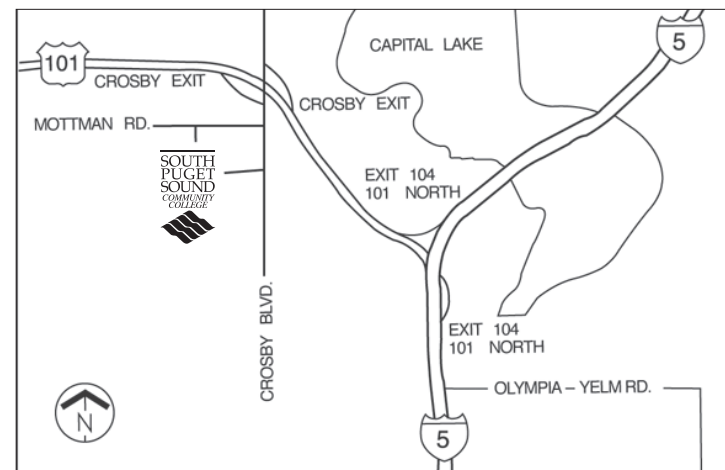
## Parent Workshop Registration Form

- 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](http://www.thurstonEYH.org)

### Organizing Committee:

Leatta Dahlhoff  
Nancy Deakins  
Mary DeJesus  
Makenzie DeVries

Kelly Green  
Sharon Guile  
Siobahn Guile-Boessow  
Theresa Kimball

Nancy McKinney  
Katya Miltimore, Chair  
Kayla Perez  
Kylie Phillips

Sierra Pierson  
Samantha Soto  
Cindy Uhrich

# 25th Anniversary

## MATH, SCIENCE AND TECHNOLOGY CONFERENCE FOR 6TH, 7TH AND 8TH GRADE GIRLS

New this year:  
PARENT RESOURCE FAIR

Meet local resources for STEM education  
including tutoring, libraries and clubs



## Mainstage Event - Your Future: Your Science

The future for today's students is something we all can only imagine. The advancements in today's STEM fields are rapidly changing our world. These changes provide students of today with a future of opportunity, and a future of responsibility. Dr. Dana Riley Black will address how today's girls create vision for such a future, and how can today's girls aspire to prepare for participation and success in such a future.

"Explore the Possibilities" video presentation by the participants of the YWCA of Olympia Girls Without Limits STEM camp



motivating young women in science + mathematics

## Saturday, March 1, 2014

AT SOUTH PUGET SOUND COMMUNITY COLLEGE

## T-SHIRT DESIGN CONTEST

~ for Middle School Girls ~

### Expanding Your Horizons

Thurston County is a math and science conference for girls in 6th, 7th and 8th grades. EYH is held at South Puget Sound Community College on Saturday, March 1, 2014. And this year we want YOU to design the conference's T-shirt.

**The theme:** Design a Science, Technology, Engineering, and Math (STEM)-inspired number 25  
**The colors:** EYH colors of purple, lime green, white and black  
**The size:** 10" x 10"  
**The medium:** Just about anything for a 2D image (digital art is OK, just make sure it's yours!)  
**The prize:** A brand new 8 GB Kindle Fire HD and your design worn by nearly 250 girls from all over South Puget Sound attending the conference!



Learn more about Expanding Your Horizons Thurston County at [www.thurstoneyh.org](http://www.thurstoneyh.org)  
Send your design by January 22, 2014 via e-mail to [tshirt@thurstoneyh.org](mailto:tshirt@thurstoneyh.org) or by mail to Expanding Your Horizons • P.O. Box 4254 • Tumwater, WA 98501



Conference Presenting Sponsor:

Olympia  
Federal  
Savings



## STUDENT WORKSHOP CHOICES

### COLUMN A

#### A-1 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.

*Malinda J. Lamm, Science/Robotics Teacher, Marshall Middle School*  
*Candycce H. Burroughs, Science/Robotics Teacher, Washington Middle School*

#### A-2 Welding is HOT!

How do those pieces of steel join together? Find out how fire and steel form structures. Learn the science of welding and discover your artistic side.

*Students from the SPSCC Welding Program*

#### A-3 A Day in the Life of a Veterinarian – Scruffy the Dog

Gown up and scrub in for surgery! Learn to draw blood, review X-rays and diagnose real patients. Take a whirlwind experience through the life of a Veterinarian.

*Dr. Erika Nelson, Veterinarian, Hawks Prairie Veterinary Hospital*

#### A-4 Chocolate Asphalt

How is a road made? What properties are important? Learn about roadbuilding 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., Civil Engineer - Department of Corrections*  
*Barbara De Ste. Croix, P.E., Development Services & Access Manager & LisaRene Schilperoot, P.E. – Washington State Department of Transportation*

#### A-5 Air Experimenté

Got clean air? Come learn and experiment how to keep our air clean and reduce pollution.

*Stephanie Sears, Air Quality Specialist; Odelle Hadley, Senior Air Quality Monitoring Specialist; Jennifer DeMay, Engineer and Emissions Inventory Specialist, Olympic Region Clean Air Agency*

#### A-6 Micro-Organisms: Our Smallest Workers

Come with us on a fun virtual field trip of LOTT's wastewater treatment plant. You'll learn from women working at the treatment plant how wastewater gets cleaned up and about some of the different jobs that are involved. Then put on your lab coat and gloves for a hands-on microscope lab to see some of the cool micro-organisms up close!

*Amber Smith, Environmental Educator; Michelle Barnett, Engineering Tech/ Construction Manager; Laurie Pierce, Operations & Facilities Director; Meghan Feuk, Lab Technician; Brittany Skinner, Operator - All with LOTT Clean Water Alliance*

#### A-7 A Day in the Life of a Veterinarian – Wildlife and Companion Animals

Come travel through a common pet disease-- straight from gathering history from a client to diagnostic testing and make a treatment plan.

*Dr. Kim Martin, Veterinarian, Hawks Prairie Veterinary Hospital;*  
*Dr. Lisa Parshley, Veterinary Oncologist, Olympia Veterinary Cancer Center*

#### A-8 Unravel the Puzzle: Why is my Dog Sick?

Recognize the symptoms and learn which tests are in order to diagnose your animal's illness. Hospitalize them, run blood tests, interpret X-rays, and get them through surgery (if they need it!). Join Dr Maggie Spath on a real veterinary adventure. *Maggie Spath, Veterinarian, Tumwater Veterinary Hospital*

#### A-9 How to Reconstruct a Car Wreck

Learn how State Patrol detectives use math, DNA, and physics in collision reconstruction, sometimes called Advanced Vehicular Investigations.

*Stacy Moate, Detective Sergeant, Criminal Investigation Division, Washington State Patrol*

#### A-10 Microscopic Clues About the Past

How do we know what the environment was like thousands of years ago? Diatoms are microscopic glass casings preserved by algae in the bottom of lakes for thousands of years, giving us clues about past environments. In this workshop we'll look at diatoms under the microscope and find out what they can tell us.

*Joy Ramstack Hobbs, Research Scientist, Science Museum of Minnesota*

### COLUMN B

#### B-1 Radiation: Myth Busters

In 1898 Marie Curie, a scientist, discovered a new mysterious highly radioactive element which glowed in the dark. They named it Radium. See the glow. Find out what inspires modern mythology like "Spiderman," the "Teenage Mutant Ninja Turtles," and the "Hulk." Try your skill at detecting radiation in household objects; learn about beneficial uses of radiation; careers involving the safe use of radiation; and tips for fashionable protective gear.

*Anine Grumbles, Laboratory and Academic Program Manager*  
*Department of Health, Office of Radiation Protection*

#### B-2 Reach for the Canopy – Trees

What is that tree? What about that mushroom? Learn how to identify trees in the woods and some of the things that make trees sick.

*Amy Ramsey-Kroll, Forest Pathologist -*  
*Washington State Department of Natural Resources*

#### B-3 Get Out of My Hair – Toxins in Personal Care

Let's talk about personal care products! Everyone uses items such as shampoo, lotion, nail polish, and perfume but what's in them? You will make an all-natural lip balm to take home to remind you that you can keep looking and smelling good without toxic products!

*Elisa Kaufman, Education & Outreach Specialist -*  
*Thurston County Public Health and Social Services*

#### B-4 Do You Hear What I Hear?

Discover the hidden complexities of communication. Experience for yourself a hearing disorder, and learn how much we rely on what our ears funnel into our heads.

*Alison Vega, Au.D., Audiologist - EN&T Assoc. Southwest*

#### B-5 Physical Therapy: Moving Forward One Step at a Time!

Join us for an inside look at one of the most rewarding professions in health care! Learn from a Physical Therapist what it takes for people of all ages to master the skill of movement and function after birth, injury, or illness.

*Jenni R. Cowser, Physical Therapist, Group Health Cooperative*

#### B-6 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 Defibrillator (AED).

*Cindy Taylor and Cory Spotts, Paramedics/Firefighters - Lacey Fire Department*

#### B-7 got DNA?

Find out about this amazing molecule that is in almost every cell of your body! DNA is what makes you who you are: It carries the instructions for everything from your hair color to your breathing. You'll get to actually extract DNA from cells and take it home with you.

*Diane Palmquist and Sarah Cabbage, Biology Instructors,*  
*South Puget Sound Community College*

#### B-8 Solve the Mystery Disease

Did you see the movie, Contagion? Ever wonder how epidemiologists do their work to identify causes of disease? Come learn how to use your observation skills with a little math to identify what is causing the mystery outbreak.

*Cathy Wasserman PhD and Mandy Stahre PhD, Epidemiologists -*  
*Washington State Department of Health*

#### B-9 What's Bugging You?

Benthic macroinvertebrates (or bottom-dwelling stream bugs) are crawling on the bottom of Percival Creek! These bugs not only serve an important role in the food web, but also act as indicators of stream health. In this outdoor workshop we will collect bug samples from the rocky substrate of Percival Creek, identify the bugs by family and form a biological assessment of the water quality in the creek. Rain or shine, please dress for the weather.

*Stephanie Bishop, South Sound GREEN Program Coordinator,*  
*Thurston Conservation District*

### COLUMN C

#### C-1 Quakin', Shakin', and Bakin' in Washington

Find out what causes earthquakes & volcanoes by learning about plate tectonics.

*Beth Norman, Geologist, Pierce Community College*

#### C-2 The Amazing World of Polymer Chemistry

What do slime, nylon, rubber, and Styrofoam have in common? They are all polymers! Here you can learn about, and make all different kinds of polymers.

*Marie Dunn, Chemistry Instructor, South Puget Sound Community College*  
*Dr. Arati Kaza, Natural Sciences Laboratory Manager, Saint Martin's University*

#### C-3 Whatever Floats Your Boat

Enter the race to build a mousetrap boat. Make a sea-worthy craft from simple materials to carry a mousetrap across our racing pool.

*Megan Hall, P.E., Local Programs, Research, and Technology Transfer Engineer;*  
*Liana Liu, P.E., PTOE, Area Engineer; Lindsey Handel, P.E., Urban Area Engineer;*  
*Sharleen Bakeman, Transportation Specialist—Planning; Debbie Lehmann, P.E.,*  
*Bridge Engineer; Tonya Price, Financial Specialist - All with the Federal Highway Administration*

#### C-4 Carbon Footprint

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,*  
*Washington State Dept. of Enterprise Services*

#### C-5 Show Me the Money

Spend a fun and interactive workshop learning how to manage your money.

*Suzanne Klenk, Karen Childs, Jennifer Havlich, Sam Wilson Community Relations Coordinators and VAULT Instructors, Washington State Employees Credit Union*

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

Our 2014 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:

##### Why STEM is Important:

The speaker will discuss the significance of STEM subjects for your daughter's future.

##### Self-Esteem in Learning:

Discover the roles self-esteem and stress play in your daughter's learning process.

##### College Finance Panel:

Learn how to navigate the confusing world of college financial aid. Panelists discuss the ins and outs of paying for college.

*(Parent workshop titles and presenters are subject to change)*

Be sure to check our website, [www.thurstoneyh.org](http://www.thurstoneyh.org) for updates.

#### For General Information:

Phone: Sharon Guile 943.1527  
Web: [www.thurstonEYH.org](http://www.thurstonEYH.org). Watch for updates!  
E-mail: [info@thurstonEYH.org](mailto:info@thurstonEYH.org)  
Find us on Facebook: Expanding Your Horizons Thurston County  
[www.facebook.com/ThurstonEYH](http://www.facebook.com/ThurstonEYH)

#### Parent Workshop Schedule

8:30 – 8:45	Check-in (Gym, Bldg. 31)
8:45 – 8:55	Welcome & Inspiration by <b>ADA Academy</b> , Seattle, WA (Gym, Bldg. 31)
9:05 – 9:55	Why STEM is Important
10:05 – 10:55	Self-Esteem in Learning
11:05 – 11:35	Break & light snack (Gym, Bldg. 31)
11:45 – 12:35	College Finance Panel
12:45 – 1:30	Main Stage Event (Gym, Bldg. 31)
	<b>Your Future:Your Science (Dr. Dana Riley Black, Institute for Systems Biology)</b>
1:30 – 1:40	Wrap up and Prizes
1:40	Please pick up your student and join us at the Parent Resource Fair (Gym, Bldg. 31)
1:40-2:40	<b>Parent Resource Fair</b>

#### Student Workshop Schedule

8:30 – 8:45	Check-in (Gym, Bldg. 31)
8:45 – 8:55	Welcome & Inspiration by <b>ADA Academy</b> , Seattle, WA (Gym, Bldg. 31)
9:05 – 9:55	Workshop I (Various)
10:05 – 10:55	Workshop II (Various)
11:05 – 11:35	Break & Light Snack (Gym, Bldg. 31)
11:45 – 12:35	Workshop III (Various)
12:45 – 1:30	Main Stage Event (Gym, Bldg. 31)
	<b>Your Future:Your Science (Dr. Dana Riley Black, Institute for Systems Biology)</b>
1:30 – 1:40	Wrap up and Prizes (Gym, Bldg. 31)
1:40	Please pick up your student and join us at the Parent Resource Fair (Gym, Bldg. 31)
1:40-2:40	<b>Parent Resource Fair</b>