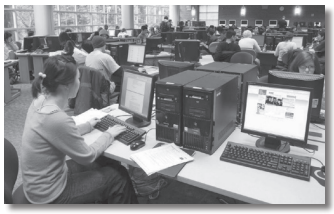
expanding your **horizons**




Math, Science & Technology Conference for Girls Grades 9 – 12

Friday, March 25, 2011

7:45 a.m. – 1:05 p.m.

Bellevue College
3000 Landerholm Circle SE, Bellevue, WA

EYH Conference Goals:

- Increase the interest of young women in mathematics, science, and technology through positive, hands-on experiences.
- Foster awareness of career opportunities in the fields of math, science and technology.
- Provide young women with opportunities to meet and interact with positive role models who are active in math, science and technology related careers.

Sponsored by:

BELLEVUE COLLEGE

AAUW
The American Association of University Women

Student Registration Form

Expanding Your Horizons

Friday, March 25, 2011

Questions: go_girls_eyh@hotmail.com

Please Print

Name _____
FIRST LAST

Telephone _____ **City** _____

School _____

Grade _____ **Special Needs** _____

Email _____

Registration Deadline Is March 11, 2011

For more information see your school counselor.
Space is limited. Register early.

Workshop Preferences

You will be assigned to three workshops. Place your **workshop number** choices in the blank spaces below. Please explore a variety of professions. By indicating nine workshops you improve your chances of getting workshops you have chosen.

1. _____ 4. _____ 7. _____
2. _____ 5. _____ 8. _____
3. _____ 6. _____ 9. _____

Student Fee

$20 (non-refundable) covers lunch and materials. Your school must be notified of your plan to attend this conference before mailing in your registration. Registration forms must be postmarked by March 11, 2011. **No confirmation will be mailed; your counselor will be notified of your registration.**

Make checks payable to: AAUW / EYH

Partial scholarships may be available. Ask your counselor.
If you qualify, have your counselor sign below.

Counselor signature _____

Mail to: **Expanding Your Horizons**
9632 Hilltop Rd.
Bellevue, WA 98004

ADULTS - PLEASE USE SEPARATE ADULT REGISTRATION FORM

To request adult program registration form, please email: **go_girls_eyh@hotmail.com**

Expanding Your Horizons

Friday, March 25, 2011
7:45 a.m. – 1:05 p.m.

Conference Schedule

7:45 – 8:15	Check in – Bellevue College cafeteria
8:25 – 9:15	Opening session
9:25 – 10:15	Session 1 Workshop
10:25 – 11:55	Session 2 Workshop / Lunch
12:05 – 1:00	Session 3 Workshop (includes 5 min. evaluation of conference)
1:05	Conference Ends

Opening Session Keynote

Trish Beckman, aerospace engineer and flight test navigator, has flown in 71 types of military and commercial jets. She will share her passion for this exciting career through a series of stories about how math and science education opens doors to opportunity.

Workshops

1. Fit for Life

We will look at alignment, muscle balance and range of motion of your legs and feet to examine some of the principles of physical therapy. Learn ways to stay fit for life!

Sue Amorosi, Karol Wilson, Physical Therapists
VIRGINIA MASON BELLEVUE, NOVELTY HILL PHYSICAL THERAPY, RESPECTIVELY

2. The Basics of Laparoscopic Surgery & Equipment

Ever wonder what doctors do when they are training to become surgeons? Come see some of the instruments used in common laparoscopic procedures. Practice basic techniques to include simple suturing.

Courtney Bear, Surgical Energy Specialist
JOHNSON & JOHNSON

3. Why Don't These Genes Fit?

Learn who is at risk for chromosome abnormalities and what types of abnormalities we detect. Determine what is wrong with several representative karyotypes.

Michele Beaumont, Cytogenetics Supervisor
DYNACARE/LABCORP

4. Success in the Corporate World

Math/calculus, physics, English, and foreign languages can be fun as they are the building blocks for a challenging yet rewarding career in corporate business.

Catherine Bedeski, Former Senior Financial Analyst
MICROSOFT CORPORATION

5. Food Detective

It's not just about calories, but food composition and why it matters. You will compare nutritional content in a "fast food" lunch to a quick, easy and nutritious lunch.

Linda Bookey, CEO; Peggie Bates and Kara Breymeyer, Research Nutritionists
BOOKEY CONSULTING, INC.; FRED HUTCHINSON CRC

6. User-Centered Design

Want to build the next viral Facebook application? Curious about how to design a mobile application that people will want to buy? Come learn about user-centered design. We'll make mock-ups of applications and practice techniques used to evaluate and improve software.

A.J. Brush, Researcher
MICROSOFT CORPORATION

7. CSI and Fingerprints

Can you lift prints from skin? Find fingerprints with the lights out using an Alternate Light Source. Develop latent fingerprints on paper and the sticky side of tape. Lift a print from evidence.

Geraldeen Chavez, Aleah Cole, Kristie Riccobuono, Katie Hosteny, Latent Print Examiners
SEATTLE POLICE DEPARTMENT

8. Design Around You!

Peek into the world of Architecture! Review drawings of Gashora Girls' Academy in Rwanda. Hands-on design charette—collaborate with architects.

Kirsten Clemens, Jo Garst, Architects; Alisha Standard, Jennifer Goode, Volunteers
MULVANNYG2ARCHITECTURE

9. Put Your Best (Inter)Face Forward

The field of Human-Computer Interaction focuses on how people interact with computers. You'll help design an alternative user interface for Facebook.

Sunny Consolvo, Research Scientist
INTEL CORPORATION

10. Wings!

How do airplanes stay up in the air? Build and launch your own gliders. Explore the aerodynamics of airplane design and some of the things aeronautical engineers do.

Peg Curtin, Aeronautical Engineer
THE BOEING COMPANY

11. Of Course Medicine Grows on Trees!

Taking care of people's health using natural medicine is challenging, rewarding, and a ton of fun. Learn about 5 plants that reduce scar formation and enhance healing. Prepare a medicinal salve and a cream or lotion. See how important math is in the process.

Jenn Dazey, Naturopathic Doctor
BASTYR UNIVERSITY; OWNER, GREEN BEAN NATURAL HEALTH

12. What Does it Mean to be a Nutritionist?

Good nutrition is synonymous with good health, but people don't know how to achieve it; that's where a nutritionist comes in. Fill out a new client questionnaire and food log. Help design a protocol for a hypothetical client, do some calculations and make recommendations.

Marta De Wulf, Nutritionist
MARTA DE WULF NUTRITION AND WELLNESS

13. Eco-Friendly Plants at Work

Concerned about pollution in your area? Learn how scientists help plants get rid of environmental pollution. They can't do it without the right genes!

Sharon Doty, Associate Professor, Keum Young Lee, Graduate Student
UNIVERSITY OF WASHINGTON, SCHOOL OF FOREST RESOURCES

14. The Invisible Structures

To build a high-rise, a bridge, or a school, geotechnical engineers must design the proper underground foundation system. Find out how they learn about the soils – its history and memory (yes, soils have memory!) so that the buildings are supported during normal conditions and earthquakes.

Ghada Ellithy, Senior Principal Engineer
SHANNON & WILSON

15. Draw Your Smile!

Draw a tooth and learn about the eye-hand coordination and background science that is needed for the dental hygiene career.

Margaret J. Fehrenbach, RDH, MS; Faith Gant, RDH, MSEd
SELF EMPLOYED

16. Running With The Bulls

Explore stockbroker experiences and financial planning as an investment advisor. It's an excellent option to use your keen mind, make a great income, and have some time flexibility. Participate in a simulation exercise of buying & selling stock.

Jeanne Forrey, CFP(R) Certified Financial Planner (TM)
ROBINSWOOD FINANCIAL

17. Exploring the Third Dimension

Learn what architects do. Participate in a design project. Examine drawings and photographs of buildings, famous and otherwise.

Judy Friedman, Thea Habersetzer, Architects
ASSOCIATION OF WOMEN IN ARCHITECTURE (AWA)

18. Human Disease Detectives

Explore medical laboratory and pathology careers. Take a virtual tour of a clinical laboratory. Work as a pathologist to examine slides of blood cells and tissue specimens, including different types of cancers.

Katherine Galagan, Pathologist and Director of Clinical Laboratories
VIRGINIA MASON MEDICAL CENTER

19. Bridging the Gap

Working as a team, use popsicle sticks and glue to build a simple bridge. Then we'll break the bridges! The bridge that supports the most weight wins a prize.

Stephanie Gardner, Mechanical Engineer
THE BOEING COMPANY

20. Creating Video Games

You will receive a brief introduction to the tools and skills needed to create your own video games!

Shannon Gilroy, SDET with Minjie Tong, SDET
MICROSOFT CORPORATION

21. So Many Hats

In a career where no two days are alike, a park ranger wears many hats: teacher, scientist, police officer and more. Come explore the diverse duties of a park ranger!

Heather Hansen, Park Ranger
WASHINGTON STATE PARKS & RECREATION COMMISSION

22. "Who Says You Have To Be A Math Wizard?"

You don't have to be a math wizard to have a successful career in accounting! If you have the appropriate skills and are motivated, the sky's the limit!

Jocelyn Hanson, Certified Public Accountant, Certified Fraud Examiner
RETIRED

23. Next Stop, Mars

Do you dream of visiting other planets, walking on Mars? Come find out about current research in space travel, then build and launch a water rocket.

Dr. Erika Harnett, Research Assistant Professor
UNIVERSITY OF WASHINGTON, DEPT. OF EARTH AND SPACE SCIENCE

24. Stars, Mars and Beyond

What careers are associated with space? It's not just about studying the stars. Curious how rockets, satellites, or solar panels are designed? What happens if someone gets sick in space? How do you identify elements in space? All this and more will be covered, along with a star studded tour of the universe.

Lisa Hill, Astronomy Presenter
BELLEVUE COLLEGE

25. See What's Inside!

Ultrasound is a super tool for diagnosing all sorts of internal conditions. You probably know about ultrasound scans of fetuses, but did you know that you can actually see inside blood vessels? Take a look at this fascinating field in health care.

Jenavi Iida, BS/RVT
LAKE WASHINGTON VASCULAR

26. Design Studio

Like art and science? Open up your imagination to product development! Learn creative problem solving techniques and how they apply to today's design industry.

Sena Janky, Senior Industrial Designer; Kristin Wells, Industrial Designer/Consultant
FLUKE NETWORKS

27. Can You Save A Duck?

Oil spills can impact a duck's habitat. Test out a few methods to clean up an oil spill and find out what works best to save a duck.

Sylvia Kawabata, Manager
US ENVIRONMENTAL PROTECTION AGENCY

28. Solutions that Fit on a Pin Head!

Come see the MICROSCOPIC organisms that make a HUGE difference in our environment, from bioenergy production to getting rid of pollution.

Dr. Zareen Khan, Research Scientist; Jenny Knoth, PhD Student, Bio-Resource Base Energy IGERT Fellow
UNIVERSITY OF WASHINGTON, SCHOOL OF FOREST RESOURCES

29. Robotics

Robots are everywhere! They are in your cell phones, on Mars, in operating rooms and vacuuming your floors. Come learn about the field of Robotics and try to build a rover to explore another planet.

Sarah Knights, Outreach Educator
MUSEUM OF FLIGHT

30. Teamwork: Foundation for Success

An important element to software development is teamwork. We'll use this session to explore the dynamics of small groups and teamwork.

Mary Ann Lipinski, Manager of Enterprise Data Warehouse
BILL AND MELINDA GATES FOUNDATION

31. Filtration FUNdamentals

Ever wonder how river water becomes tap water? Now is your chance to find out! Join us as we learn what makes a filter work and how to build one of your own.

Erika Lindsey, Nancy Feagin, Professional Engineers; Kitty Weisman, Source Water Protection Lead
WA STATE DEPARTMENT OF HEALTH, OFFICE OF DRINKING WATER

32. Managing Money in the Stock Market

Come explore the world of investing in the stock market. Find out more about how to help others plan for and reach their financial goals.

Shannon T. Loughery, Investment Advisor Representative
SELF EMPLOYED

33. Look Who's Talking!

What is a speech therapist? It is a job that allows you to work with babies and seniors in settings which include public schools, hospitals, birth to three centers and nursing homes. Come and find out about becoming an SLP.

Jodi Madden, Speech Language Pathologist (SLP)
KENT SCHOOL DISTRICT

34. You're an Ichthy-What?

Ichthyologist = a person who studies fishes. Learn about the UW's 7.8 million preserved fish specimens, what it's like to do field work, and try to identify some of our local fish species.

Katherine Maslenikov, Ichthyology Collections Manager, Burke Museum
UW, SCHOOL OF AQUATIC AND FISHERY SCIENCES

35. Law And Order: Women in the Criminal Justice System

Your challenge: Find solutions to different scenarios we have faced. Discuss outcomes and the impact these experiences have on people in these professions.

Katelyn McGinnis, Police Officer; Stefanie Jones, Victim Advocate, ICAC Unit
REDMOND AND SEATTLE POLICE DEPARTMENTS

36. Road Trip To Clean Water: NW Highways, Streets & Stormwater

Help build the transportation system of the future and protect the environment in the process. Learn how to use stormwater pollution prevention products and test them for effectiveness.

Maureen Meehan, Stormwater Advisor
SEATTLE DEPARTMENT OF TRANSPORTATION

37. Animal Talk: A Day in the Life of a Practicing Veterinarian

See what day-to-day life is like for a small animal veterinarian—the good, bad, and the ugly! Learn about the journey to vet school and what you need to do to prepare yourself. Come armed with questions!

Sue A. Moriyasu, DVM, Associate Veterinarian
RAINIER VETERINARY HOSPITAL

38. Forensic Science and Trajectory Analysis

Students will be given a brief overview of forensic science and have a hands-on exercise of how firearms examiners and crime scene investigators calculate bullet trajectories.

Natasha Pranger, Kathy Geil, Forensic Scientists
WASHINGTON STATE PATROL CRIME LABORATORY

39. Airplane Testing, From Materials to Flight

We will discuss and investigate an airplane, from the materials used to build it, to the testing conducted to certify an airplane. Calling all prospective engineers and pilots!

Heather Ross, Captain
BOEING CORPORATION

40. Oceans '11

Pacific halibut is a flatfish that can grow to 500 pounds and is found right off of our coast. Explore through hands-on oceanographic mapping how the ocean environment affects these fish.

Lauri Sadorus, Biologist
INTERNATIONAL PACIFIC HALIBUT COMMISSION

41. The "People Side" of the Technical World

Learn how you can apply your interest in math and science to the "people side" of how the world works by engaging communities in important decisions about water, air, land, transportation, and other complex issues.

Pat Serie, Senior Principal; Lauren Stensland, Kaila Yoshitomi, Associates
ENVIROISSUES

42. Nursing: Where Art and Science Meet

Today's nurses must have not only a strong set of technical knowledge, but also an uncanny sense of how to help patients make sense of their illness. Learn from incredible stories about the art of nursing and the technical skill of giving injections.

Chitra Sharifian, BSN, RNC, MNC, Staff Nurse
SWEDISH ORTHOPEDIC INSTITUTE

43. Your Future is in Their Genes

Experience a day in the life of a genetic counselor, a little known field ranked among the best careers of 2009 in the US News & World Report. Learn how we use the family history to determine inheritance patterns of different genetic conditions and provide counseling to families.

Britta Sjoding, Heidi Vance, Genetic Counselors
UNIVERSITY OF WASHINGTON MEDICAL CENTER

44. A Mathematician's Topological Adventures

What is mathematics research? Take a journey into the research field of Topology. Learn how to investigate unknown surfaces and discover some special properties. (No number crunching involved!)

Sweta Suryanarayan, Graduate Student
UNIVERSITY OF WASHINGTON, DEPARTMENT OF MATHEMATICS

45. Xbox and Kinect: Math, Science & Gaming

Math and science can produce some really fun things—for example, the Xbox and Kinect. Learn how business intelligence and data contributed to the success of these cool products!

Mary R. Sweeney, Business Intelligence and Reporting Manager, Microsoft Customer Support Services
MICROSOFT CORPORATION

46. Chicks in Charge: Be a Leader in the Engineering World

Meet a panel of female Civil Engineers who will answer your questions about leadership, career options in Civil Engineering, how to survive math before you choose you career path, and generally what it's like to be a woman working in the Public Works arena.

Katherine Claeys, Trisha Thomson, Hillary Stibbard, Jill Marilley, Civil Engineers
CITIES OF SEATTLE, REDMOND, BELLEVUE, HDR ENGINEERING

47. Skin Deep

What is so "apeeling" about dermatology? Learn how to recognize a deadly skin cancer. Come and take a look at common skin diseases and how we use technology in the clinic.

Julie Voss, MD, Dermatologist
NORTHWEST FACE

48. The Tooth of the Matter

Practicing dentistry does not mean you are confined to an office. You can have your job and your love of adventure. Come and explore this world of dentistry around the world and see if it fits into your lifestyle.

Thuha T. Vuong, Dentist
SELF EMPLOYED

49. What's Up With Acid Rain?

Acid rain is one of the major air pollution problems worldwide. Do some chemistry experiments to learn how acid rain forms. Use a variety of internet resources to investigate where acid rain occurs.

Nicole Wigder, Erika Navarro, Maria Zatko, Graduate Students
UNIVERSITY OF WASHINGTON ATMOSPHERIC SCIENCES DEPT

50. Egg Drop Swoop!!

Good engineering design, sound mathematics, and creative thinking are needed to design a vehicle to transport a precious cargo safely to earth. Can your design protect an egg when dropped—or will the cargo end up scrambled?

Catherine A. Wolfgram, Industrial Engineering Manager
THE BOEING COMPANY

51. Homes of the Future: Zero Energy

Homes and buildings use 40% of the energy in the U.S., but we can cut that energy use in half by designing a "zero energy" house. Interested in architecture or construction? Concerned about energy use or climate change? Join us!

Pam Worner, President and CEO, assisted by Katie Boyd
GREEN DOG ENTERPRISES, INC.

52. Pixel Perfect Design

Ever wonder why some software or websites are easier to use than others? Learn how user interface designers make sure their work doesn't end up in the "User Interface Hall of Shame."

Emily Yang, Program Manager
MICROSOFT CORPORATION

53. Joints In Motion/Rehab In Action

Learn about the exciting and varied field of physical therapy. We will focus on the shoulder region and learn about the anatomy, biomechanics, physical therapy evaluation and treatment techniques related to the shoulder.

Megan Yount, Physical Therapist
EASTSIDE SPORTS REHABILITATION

ATTENDANCE: You will receive proof of attendance at the conference. Your school will be notified if you are registered but do not attend the conference.

We wish to thank ***Bellevue College; American Association of University Women, Issaquah - Kirkland/Redmond - Lake Washington Branches*** and our other sponsors for their support of the **Expanding Your Horizons Conference.**

Questions? E-mail: *go_girls_eyh@hotmail.com*
Need another brochure?
Go to http://eyh.edlabgroup.org/brochures/bccHS.pdf
or www.aauw-lakewashington.org

Are you interested in the **Middle School** Expanding Your Horizons for 6th, 7th and 8th grade girls to be held at Bellevue College Saturday, March 26, 2011? If so, e-mail *eyhbcc_middleschool@hotmail.com*