50. On Track to the Future
Threading new transit lines through urban environments is challenging, both technically and politically. Learn the required skills to get major transportation projects built within established neighborhoods.

Jeannine C. Viscout, PE, Vice President/ Principal Project Manager
PARSONS BRINCKERHOFF

51. 3D Printing
Come learn about 3D printing, a manufacturing process that turns computer models into reality. We will have several different styles of printers, including one that prints in chocolate frosting.

Bethany Weeks, Sydney Dahl, Students, Dept. of Mechanical Engineering
UNIVERSITY OF WASHINGTON

52. Climate Detectives: Extreme Earths
Have you ever heard of Snowball Earth? Hothouse Earth? What makes today’s Earth habitable? You will investigate a hypothetical Earth and figure out what makes the temperature different from today.

Nicole Wigler, Kelly McCusker, Beth Friedeman, Graduate Students
UNIVERSITY OF WASHINGTON

53. Building Roads/Changing Travel Modes
Help build the transportation system of the future and protect the environment in the process. Learn designs that help reduce the carbon footprint from road construction and driving in cities.

Lorelei Williams, Capital Projects Manager
Denise Healy, Sr. Environmental Analyst
SEATTLE DEPT. OF TRANSPORTATION

54. Forensic Science and Trajectory Analysis
You 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 Williams, Kathy Geil, Forensic Scientists
WASHINGTON STATE PATROL CRIME LABORATORY

55. Egg Drop Swoop!
Good engineering design, sound mathematics, and creative thinking are needed to design a vehicle to transport precious cargo safely to earth. Can your design protect an egg when dropped?

Catherine A. Wolgrom, Industrial Engineering Manager;
Erin Petersen, Mathematician; Annemarie Ketola, Engineer
THE BOEING COMPANY

56. The Home 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
GREEN DOG ENTERPRISES, INC.

57. 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, Melissa Kerr, Program Managers
MICROSOFT

58. Radiology: Diagnosis through Pictures
A Radiologist is an M.D. who analyzes X-ray, MRI, ultrasound, CT and other pictures to see what’s wrong with the patient. See several images and diagnose some of the cases.

Claudia Zacharias, M.D.

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, Lake Washington Branch; Intellectual Ventures; Expanding Your Horizons Network and our other sponsors for their support.

Questions? E-mail: gogirlyeh@gmail.com
Need another brochure?
Go to http://lakewashington-wa.aaauw.net

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 23, 2013? If so, e-mail eyhbccl_middleschool@hotmail.com

Science, Technology, Engineering & Math
Conference for Girls
Grades 9 – 12
Friday, March 22, 2013
7:45 a.m. – 1:00 p.m.

Bellevue College
3000 Landerholm Circle SE, Bellevue, WA

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

Sponsored by:

BELLEVUE COLLEGE

The American Association of University Women

INTELLECTUAL VENTURES®
Expanding Your Horizons  
Friday, March 22, 2013

Please Print
Student Name ________________________________  
Telephone ________________________________ City ________________________________  
School ________________________________ Grade ________________________________  
Grade ________________________________ Special Needs ________________________________  
Email ________________________________  

Register now! Space is limited.  
For more information, see your school counselor.

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/materials.  
Your school must be notified of your plan to attend this conference before mailing in your registration. Registration forms not accepted after March 8, 2013. No confirmation will be mailed; your counselor will be notified of your registration. Students registering independently may check registration status at gogirlseyh@gmail.com

Make checks payable to: AAUW / HS EYH

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

EDUCATORS AND PARENTS – PLEASE USE SEPARATE ADULT REGISTRATION FORMS

Adult program & registration forms are available at http://lakewashington-wa.aauw.net.

Questions: gogirlseyh@gmail.com

Expanding Your Horizons  
Friday, March 22, 2013
7:45 a.m. – 1:00 p.m.
Conference Schedule
7:45 – 8:15 Check in – Bellevue College cafeteria  
8:30 Session 1 Workshop Begins  
1:00 Conference Ends

Workshops
1. Fit for Life  
We will look at reflexes, muscle balance and range of motion of your legs to learn some basic principles of Physical Therapy. Education requirements and the variety of work in PT will be discussed.  
Sue Amorosi, Cindy Zech, Physical Therapists  
VIRGINIA MASON MEDICAL CENTER, BELLEVUE; WASHINGTON SPORTS INSTITUTE PHYSICAL THERAPY, TOTEM LAKE

2. Explore Electrical Activity of the Human Brain  
This workshop will demonstrate proper electrode application, the recording of human brain waves and the art of interpreting the waves.  
Stacey Austin, Electroneurodiagnostic Technology Program Chair/instructor; assisted by ENDT students  
BELLEVUE COLLEGE

3. Hands—More Than Painted Nails!  
See what it’s like to work as an Occupational Therapist who specializes in hand therapy. Have fun playing with splint material and other therapy-related gadgets.  
Constance Ballou, MA, OTR/L, CHT; assisted by Clary Smith  
WASHINGTON HAND THERAPY

4. Basics of Laparoscopic Surgery  
Ever wondered what it takes to develop the skills a surgeon needs in the operating room? Experiment with equipment used in surgery, and try your hand on our laparoscopic simulators!  
Courtney Bear, Executive Energy Specialist  
JOHNSON & JOHNSON

5. Success in the Corporate World  
Math/calculus, physics, English, and foreign languages can be fun as the building blocks for a challenging yet rewarding career in corporate business.  
Catherine Bedeski, Former Senior Financial Analyst  
Formerly with MICROSOFT

6. Creativity for Science Breakthroughs  
Learn how to use your creativity and imagination, skills necessary for science exploration and breakthroughs that lead to new solutions to problems. Learn ways to develop your own creativity.  
Beth Britt, PhD, Computer Science  
INTELLECTUAL VENTURES

7. Make Your Own Gadgets  
Like to build things? We’ll demo the Microsoft .NET Gadgeteer toolkit. You will build your own gadgets with different sensors and actuators (e.g. motion, camera, buttons, displays).  
A.J. Brush, Senior Researcher; Kerry Hammil, Senior Program Manager  
MICROSOFT RESEARCH

8. The Molecular World of the Cell  
Your genetic information is encoded in DNA. See how DNA is stored in the cell and isolate DNA in the lab. Learn how sequence variants in DNA can cause susceptibility to various diseases.  
Karen Cerosaletti, PhD, Research Assistant Member, assisted by Rachel Martin, Community Outreach Coordinator  
BENAROYA RESEARCH INSTITUTE

9. Mathematics and Art  
Mathematics and art have a long relationship, from the aesthetics of the golden ratio to the works of M C Escher and the design of video games. Learn to make your own mathematically-inspired art!  
Jasmine Cetrone, Math Faculty  
BELLEVUE COLLEGE
10. A Day in the Life of an Architect
Architects wear many hats in the workplace. Explore brainstorming/sketching, creating technical documents, researching products or systems, listening to clients and creative problem solving.
Sadie Cline, Project Architect; Casey Riske, BIM Manager, Architect
THE MILLER HULL PARTNERSHIP

11. Making a Smarter Phone
Learn about Human-Computer Interaction that focuses on how people interact with technology. In this workshop, you'll design a phone that gives you what you want, when you want it.
Sunny Consolvo, Joe Tullio, User Experience Researchers
GOOGLE

12. Wine Technology—Fun with Aromas
Explore aromas and detect smells found in nature. Can you identify them? Understand how you can improve on identifying an aroma and how that will help you with exciting jobs in the future!
Reggie Daigneault, Wine Technology Program; Eleanor Pawley, Intern
SEATTLE CC DISTRICT at South Seattle CC

13. 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.
Jenn Dazez, Naturopatic Doctor
BASTYR UNIVERSITY; OWNER, GREEN BEAN NATURAL HEALTH

14. Being a Nutritionist in Today's World
What does a nutritionist do day-to-day? Learn how a nutritionist uses innovation and technology to teach nutrition and to help people live healthier lives. Q&A
Marta De Wulf, Nutritionist
SELF EMPLOYED; NUTRITION SOLUTIONS; FOODN ME

15. Eco-Friendly Plants at Work
Plants can be used to clean up environmental pollutants. Adding microbial partners or the right genes can help them do it better!
Sharon Doty, Associate Professor; Keum Young Lee, Graduate Student
UW, SCHOOL OF FOREST RESOURCES

Have fun with food science in the kitchen and learn to make Powdered Salad Dressing, Whipped Cranberry Juice, and Cherry Creamsicles made with liquid nitrogen!
Lisa Dupar, Chef; assisted by Sara Mogensen, Public Relations
LISA DUPAR CATERING, POMEGRANATE BISTRO

17. 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 so that the buildings are supported during normal conditions and earthquakes.
Ghada Ellithy, Geotechnical Engineer
U. S. ARMY CORPS OF ENGINEERS

18. I Only Have Eyes For You!
Being an optometrist is a bit like being secret agent 007 without the danger. We solve problems, play with complex equipment, and can travel to exotic places. We’ll look inside each other’s eyes and perform other non-invasive tests.
Lisbeth Faulstich, OD, Doctor of Optometry
GROUP HEALTH (Retired); SEATTLE CENTRAL COMMUNITY COLLEGE

19. CSI: Solving Crime with Fingerprints
Come develop fingerprints like a real CSI! You will apply the chemicals, develop the prints, and lift the prints. You will also get to see fingerprints “glow” with an alternate light source!
Rachel Forbes, Kristi Riccobono, Amanda Poast, Sharon Brazalovich; Latent Print Examiners
SEATTLE POLICE DEPT.

20. Running With The Bulls
Explore stockbroker experiences and financial planning as an investment advisor. 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

21. What Are Acupuncture and Oriental Medicine?
Help the body to heal the natural way. Learn about the Meridian Theory, the foundation of Chinese medicine; see acupuncture needles; learn the medicinal effects of Chinese herbs.
Mayme Fu, Acupuncturist/Herbalist
PEOPLE'S ACUPUNCTURE

22. Can You Really Trust Your Brain?
Learn how your nervous system transforms light, air pressure, and chemicals into sight, sound, and taste. See colors/movement when they don’t exist, hear words when no one else can, taste flavors that aren’t there!
Stephanie Furrer, Post-Doctoral Fellow
UNIVERSITY OF WASHINGTON
Jenny Stone, Research Associate Professor, Dept. Of Otolaryngology
VM BLOEDEL HEARING RESEARCH CENTER

23. 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, Product Support Engineer
THE BOEING COMPANY

24. The Measure of Time: Archaeology and Math
Share the excitement of an archaeological dig and sharpen your math skills at the same time! Learn first-hand how the essentials of a dig are also the essentials of mathematics.
Nancy Gonlin, Christine Dixon, Professors of Anthropology
BELLEVUE COLLEGE

25. People Who Like People: Speech-Language Therapists
Speech-language therapists help people communicate! They work with all age ranges, from babies to seniors, in various settings. You will work through activities designed to show different therapies.
Joanna Gursley and Leann Hakala, Speech-Language Pathologists
KENT SCHOOL DISTRICT 415

26. 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

27. Lean, Mean Manufacturing Machine
Have you ever wanted to run a business? We will focus on the manufacturing process of a product. Learn manufacturing, business and consulting skills by gathering, analyzing and improving processes in a data-driven way.
Claudia Hung, Senior Manager; Assisted by Several Colleagues
INTELLECTUAL VENTURES

28. Computer Engineering in Action
What does a career in computer engineering mean? With a background in electronics, software design and hardware-software integration, computer engineers are involved in many hardware and software aspects of computing.
Rania Hussein, PhD.
UNIVERSITY OF WASHINGTON - BOTHELL

29. The Heart of Nursing
Do you know that nurses work in IT on Cruise Ships and as CEOs? We'll look at nursing careers. We’ll look at the inner working of a real cow heart and lung. We’ll see how dysfunction can affect our patients.
Melissa L. Hutchinson, MN, RN, CCNS, CCRN, CWCN;
Collynt West, BSN, RN; Natina Dudley, RN, MSN
VA PUGET SOUND HEALTH CARE SYSTEM
30. **Fighting Cancer with Radiation**  
Learn about radiation therapy - the different roles of staff, the tools needed to measure radiation dose, internal parts of a treatment machine, and cool things that radiation can do, including cure cancer.  
**Amanda Jackson, Medical Physicist**  
NORTHWEST MEDICAL PHYSICS CENTER

31. **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

32. **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

33. **Curious About Curiosity?**  
Robots are on Mars, in your kitchen, in operating rooms and just about anywhere you can imagine. Come learn about the field of Robotics and try your hand at building your own rover.  
**Sarah Knights, Outreach Coordinator**  
MUSEUM OF FLIGHT

34. **Managing Money in the Stock Market**  
Learn about an exciting career managing money in the stock market. We will discuss the day to day duties of an advisor and look at various websites pertaining to the stock market.  
**Shannon T. Loughery, Investment Advisor Representative**  
SELF-EMPLOYED

35. **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

36. **‘Fess Up: Business Ethics**  
You’ll almost always survive the screw-up. You’ll hardly ever survive the cover-up. Hear real stories of fraud & unethical behavior in the business world and how to avoid pitfalls in your business careers.  
**Martha McCready, CPA, Finance Manager**  
LINGOs Global

37. **Law and Order: Women in the Criminal Justice System**  
We will explain the Criminal Justice System and employment opportunities within. We’ll discuss the challenges and rewards associated with a career in Law Enforcement and walk through “typical” case loads.  
**Katelyn McGinnis, Police Detective**  
CITY OF REDMOND  
**Stefanie Thomas, Victim Advocate, High Risk Victims Unit**  
SEATTLE POLICE DEPT.

38. **Working with Agility**  
Teamwork, creativity, and savvy programming skills are needed to adapt code rapidly to changing needs. Learn how cooperation, try-as-you-build, and reusable code help software engineers innovate.  
**Christie McMenomy, PhD, IT Infrastructure Architect**  
THE BOEING COMPANY  
**Pat Tressel, Software Engineer**  
SAHANA SOFTWARE FOUNDATION

39. **A Day in the Life of a Veterinarian**  
Learn about career opportunities available to veterinarians beyond working in a small animal practice--in the private and public sectors as well as in research. Examine a live animal. Use a stethoscope, a microscope and more!  
**Sue A. Moriyasu, DVM, Veterinarian**  
SELF-EMPLOYED

40. **WetLab Academy: How Healthy Is Our Water?**  
Investigate the amazing organisms that call our local streams and waterways their home. Learn how scientists use them and other information to help determine the health of our streams.  
**Siri Nelson, Supervisor, Center for Talented Youth**  
MERCER SLOUGH EEC, PACIFIC SCIENCE CENTER  
**Rianne BeCraft, Wetlab Academy Program, MSEEC**

41. **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.  
**Rochele Oslick and Tracey Westry, Airplane Performance Engineers**  
THE BOEING COMPANY

42. **Women Who Stare at Plants**  
I wonder what the world would be like if I was able to see in plants. Learn the basics of plant biology and working with plants in the laboratory. You'll almost always survive the screw-up. You'll hardly ever survive the cover-up. Hear real stories of fraud & unethical behavior in the business world and how to avoid pitfalls in your business careers.  
**Melanie Rickett, Sarah Neumeyer, Fisheries Biologists**  
NOAA/NMFS/AFSC  
**Assisted by Gina Tolbert, Biological Tech**

43. **Data and Telecommunications Basics!**  
Learn the fundamentals of setting up communications between two parties (people, computers) irrespective of location. Availability of wired, wireless, cable, and satellite methodologies is taking us towards one global world.  
**Lakshmi Raman and Jian Ma, Engineers**  
INTELLECTUAL VENTURES

44. **A Vast Ocean of Opportunity**  
What do photos of life aboard ships, samples of ocean biology and immersion suits have in common? See what life at sea is like as a marine biologist, and learn how they help keep the ocean healthy.  
**Claudia Zacharias, M.D.**  
NORTHWEST MEDICAL PHYSICS CENTER

45. **Oceans ‘13**  
Ever wondered what the world is like to a fish living off the Washington coast? You will explore this question through hands-on demonstrations and computer mapping of oceanographic habitat.  
**Christina Loughery, Investment Advisor Representative**  
SELF-EMPLOYED

46. **Let the Sun Shine In: Solar Energy**  
Explore the future of renewable energy, test photovoltaic cells by running fans off of light, then design and construct your own solar oven.  
**Pam Worner, President and CEO**  
MICROSOFT

47. **Nursing: Where Art & Science Meet**  
Learn from incredible stories about the art of nursing – helping patients make sense of their illnesses as well as the technical skill of giving injections.  
**Chitra Shari, RNC, MN, Staff Nurse**  
SWEDISH ORTHOPEDIC INSTITUTE

48. **Your Future Is in Their Genes**  
Experience a day in the life of a genetic counselor. Learn how we use the family history to determine inheritance patterns of different genetic conditions and provide counseling to families.  
**Britta Sjöberg, Heidi Holmes, MS,CGC, Genetic Counselors**  
WASHINGTON STATE PATROL CRIME LABORATORY  
**Natasha Pranger Williams, Kathy Geil, Forensic Scientists**

49. **Chicks in Charge: Be a Leader in the Engineering World**  
Meet Civil Engineers who will discuss leadership, career options in Civil Engineering, how to survive math and what it’s like to be a woman working in the Public Works arena.  
**Tricia Thomson, Senior Transportation Engineer; Katherine Claey, Hillary Stibbard, Civil Engineers**  
CITIES OF REDMOND, SEATTLE, BELLEVUE

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• Meet experts in their fields as they present their work.  

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