EYH West Virginia

Hands-on Science, Technology, Engineering, and Mathematics Workshops for Girls in Grades 6-8 (Adult Program Too!)

Saturday April 20, 2013; 9:00 AM-3:30 PM

WVU White Hall, 135 Willey St., Morgantown, WV

MORE DETAILS AND ONLINE REGISTRATION AT:

http://www.expandingyourhorizons.org/conferences/WestVirginia/

or complete and mail by Wednesday, April 10th (registration will close early if capacity limit reached):

STUDENT REGISTRATION FORM

Name_____

Address_____

_____

Phone Number_____

Parent Name_____

Parent Email_____

Parent Phone (if different)_____

Which school do you attend?_____

What grade are you in?_____

Have you attended EYH before? _____ If yes, what location or year?_____

There is a non-refundable $5.00 registration fee. Scholarships are available for economic hardship. Please check if you are requesting a scholarship:_____

Mail completed registration form, completed workshop selection form, and check for $5.00 made to WV AWIS (write student's name on memo line) to:

EYH 2013 Registration, c/o Dr. Amy Keesee, WVU Physics Department,
PO Box 6315, Morgantown, WV 26506

WORKSHOP SELECTION FORM

Students will participate in 4 hands-on workshops. Please rank your top 4 choices (note there are two pages). Schedules will be assigned based on preference and availability.

Student Name_____

___**A. Become a legal drug dealer**
Discussion of careers in pharmacy combined with a short history of pharmacy and hands-on pharmacy-related experience

___**B. Build your own high performance glider**
Students will work under supervision in pairs to construct all the individual components that make up a glider aircraft. Students will fine-tune their work by hand finishing each part before assembling all the pieces to make a working glider with a two foot wingspan. Students will learn both from instruction and from hands-on experience about the form and function of the wing, fuselage, and tail surfaces of an aircraft. During the session, students are encouraged to test their own work, hand-launching their gliders to make sure that they have arranged all the parts for optimum stable flight. Every student will complete the session with his/her own glider to take home.

___**C. Diagnosis: DNA**
Learn about the structure and sequence of DNA and use it to solve mysteries including diagnosing a disease and identifying a criminal.

___**D. Engineering Your Environment**
Students will construct different types of sand filters in water bottles as an example environmental engineering problem. We will test the removal of chocolate powder in water through the filters.

___**E. ESTEEM PHYSICS**
The workshop will offer students an interactive, modern science exploration that they will not be likely to forget. Those experiments have the advantage that are at the front-line of physics research and can be understood at the conceptual level of knowledge. The exciting learning environment that will be created will inspire them to become future scientists.

___**F. Genetic Trait Bingo**
Introduction to genetics: genes, traits and heritability, using bingo!

___**G. In the Nanozone**
Nanoscience is a new and exciting field. Discover the Science of the Really Small.

___**H. Lights, Camera, Code It!**
Learn the basics of computer programming using the Storytelling Alice programming environment to make a short animated movie.

(workshop selections continued on next page)

___I. Mini Computers and their Future!
What do nail polish and future computers have in common? Magnetism.Workshop participants will explore magnetism through magnetic nail polish and learn how magnets will change the future of our computers. A brief look at how computers work will allow us to explore some of the hottest science of today and why I get to play with lasers.

___J. Physics out of thin air
Chop a wood stick with bare hand? Make a shotgun out of a hairdryer? Don't worry, these are not missions impossible. Little molecules in the air will help you out. In this demonstration, you will see a few tricks that the air can do and also learn the physics behind it.

___K. Robot Sumo-Wrestling
In teams of 3, build and program a robot capable of pushing your opponent's robot out of a fixed circle on the playing field.

___L. Searching for Bigfoot?!
Come and learn to use an infrared camera (yes, it is the model used in the popular TV shows *Searching for Bigfoot* and *Ghost Hunters*). Study infrared signatures of the world around you. Print out infrared pictures of yourself to take with you. Watch endothermic and exothermic reactions as recorded with an IR camera. And learn why you'll never really pick up ghosts with IR equipment!

___M. The Language of Computing
We will discuss electronic devices and device communications. The hands-on workshop will introduce the binary number system and Internet Protocol. Students will use iPads.

___N. Scientific Chef—Exploration in Cooking!
Did you know that as you prepare food, experiments are taking place in your kitchen? Cooking with Science is entertaining, educational, and a hands-on science lab waiting to be explored? Conduct fun experiments that you can actually eat! Become a kitchen chemist and learn how baking soda and baking powder affect foods differently. Learn about acids, bases, and pH balance and how it changes the taste and color of your food. You can acquire skills to help you conduct experiments using products found in your own kitchen.

___O. Web Page Mystery Machine
Come on a tour of the Web Page Mystery Machine: look under the hood at its HTML, polish it up and make it pretty with CSS, and take it for a spin with some simple JavaScript. Learn how to create and edit a web page using a text editor.

EYH West Virginia

Hands-on Science, Technology, Engineering, and Mathematics Workshops for Girls in Grades 6-8 (Adult Program Too!)

Saturday April 20, 2013; 9:00 AM-3:30 PM

WVU White Hall, 135 Willey St., Morgantown, WV

ADULT PROGRAM INFORMATION

Parents and teachers are invited to attend three workshops:

The College Admissions and Financial Aid Process; West Virginia University personnel will explain the process and answer questions.

Intro to the NASA IV&V Educator Resource Center; Pam Casto will talk about science opportunities for students and educators at the NASA facility in Fairmont, WV.

Encouraging Your Daughter's Interest in Science; Dr. Jennifer Robertson-Honecker will discuss ways to encourage your daughter to pursue her interests in science, technology, engineering, and mathematics.

Adults are welcome to observe science workshops during the final workshop.

Adult registration is free. Please mail to:

EYH 2013 Registration, c/o Dr. Amy Keesee, WVU Physics Department,
PO Box 6315, Morgantown, WV 26506

ADULT REGISTRATION FORM

Name_____

Address_____

_____

Phone Number_____

Email_____

EYH Medical and Photo Release Form

Please print, sign, and bring this release form with you to the EYH conference

Student Name_____

Phone (in case of emergency) _____

I give permission for my child to receive emergency medical treatment and care. I give permission for my child to be photographed and videotaped and for the images to be published in newspapers, magazines, and on the Internet for the purpose of promoting the EYH Conference.

Parent/Guardian Signature and Date

_____

Please come to White Hall on the campus of West Virginia University at 9:00 AM on Saturday, April 14th. A light continental breakfast and a lunch will be provided. Please contact Dr. Amy Keesee with questions: amy.keesee@mail.wvu.edu or 304-293-5113.