



## 2019 Merit-Based STEM Scholarships for Girls in Centre County Application Form

Applicant's Name: \_\_\_\_\_ Grade in 2019-2020 School Year: \_\_\_\_\_

*\*Please note that you must be entering 6<sup>th</sup>-12<sup>th</sup> grade next year (2018-2019 school year) in order to be eligible for this scholarship*

Current School: \_\_\_\_\_ Current Age: \_\_\_\_\_

Parent Contact Email: \_\_\_\_\_ Parent Phone Number: \_\_\_\_\_

Please list your top 3 choices for the Science-U 2019 day camp that you would attend if you receive this scholarship. (The list of Science-U camps that you could attend is on the back of this sheet. Please check the grade levels for each camp before making your selections to make sure that you are eligible to attend!)

First Choice Camp to Attend: \_\_\_\_\_

Second Choice Camp to Attend: \_\_\_\_\_

Third Choice Camp to Attend: \_\_\_\_\_

Have you received this scholarship before?  Yes  No

**Essay Question: On a separate sheet of paper, please write a one-page essay (approx. 300 words) that answers the following questions.**

1. What area of science interests you the most and why?
2. Which Science-U camp(s) are you most interested in attending and how do you think attending these camp(s) will benefit you?
3. If selected, how will you use this experience to encourage others to be interested in STEM?

**How to Submit: Send this application form and your essay to us no later than January 10<sup>th</sup>, 2019 using one of the methods below:**

Mail to:

Science-U Summer Camp Program  
AAUW State College Branch STEM Scholarship Committee  
201 Ritenour Building  
University Park, PA 16802

Email to: [sciencecamps@science.psu.edu](mailto:sciencecamps@science.psu.edu)

Fax to: 814-865-0096

**Don't Forget!**

*Remind your teacher or STEM Mentor to submit their recommendation form to the scholarship committee by January 10<sup>th</sup>, 2019!*

*Thank you for applying to the AAUW State College Branch STEM Scholarship to Science-U! For more information, please contact the Science-U office at (814) 865-0083 or by email at [sciencecamps@science.psu.edu](mailto:sciencecamps@science.psu.edu).*

**Science-U 2018 Camps for 6<sup>th</sup> – 12<sup>th</sup> Graders:** Please note that Science-U camp eligibility is based on the grade you will be in the following school year. For example, if you are in 5<sup>th</sup> grade now, you can choose any camp that is open to 6<sup>th</sup> graders since you will be in 6<sup>th</sup> grade next year. Visit [www.ScienceCamps.psu.edu](http://www.ScienceCamps.psu.edu) for more camp information.

<b>Camp Name (Eligible Grades)</b>	<b>Camp Description</b>
<b>Water Heroes</b> July 1-3 (G6-8)	We need Water Heroes to solve the water and energy problems of the future! How can we ensure that the next generation of people on our planet has access to clean water? How do we even know if water is clean or not? If water is polluted, how much energy do we need to clean it and where does that energy come from? In this camp, we will investigate sources of water pollution, explore creative methods for cleaning up water, and trace how everyday actions like driving a car and turning on the lights relate to access to clean water. Join Penn State faculty and students in this adventure that will include laboratory experiments that you design and field investigations of real water sources! This is a three-day camp.
<b>Ecology Camp: The Wild Wonders of Your Own Backyard</b> July 8-12 (G6-8)	Ecologists-in-training will spend a week traveling to ecologically important locations in Centre County, exploring unique water resources and ecosystems, and learning about the flora and fauna of our region. Daily, hands-on "Creature Features" will give campers the opportunity to learn to identify fish, amphibians, and reptiles. Campers will also use kick seines and hand nets in streams and ponds to sample, identify, and access invertebrate life as bio-indicators of water quality. During the week, campers will paddle a canoe in our watershed, hike in ecologically significant areas, tour a fish hatchery, identify important trees, learn about acid mine damage to streams, build water filters, and gain awareness, understanding, and appreciation for the wild wonders of Centre County. <i>Please note: Our camp is instructed in local and sometimes remote outdoor environments, including mountain tops, rocky trails, swamps, streams, and lake shore locations.</i>
<b>Finding Your Roots</b> July 14-19 (G6-8)	This camp is designed to get campers up close and personal with their own DNA so that they can explore the questions of where they come from and what makes them who they are. Campers will complete a DNA test before camp (secure DNA kits will be sent from Science-U) and will use information from their DNA test to talk about their traits like hair/eye/skin color, smell/taste perception, lactose intolerance, and caffeine metabolism with other campers. During camp, campers will discuss several topics, including inherited traits, evolution, and anthropology. Campers will also conduct genealogical research to learn about family members, their traits, and traditions. This camp is a place where the science is all about you — register today! <i>(Note: The first full day of camp is Monday, July 15th, but all campers will check in for an opening ceremony the evening of Sunday, July 14th.)</i>
<b>CSI: The Case of the Creepy Cottage</b> July 15-19 (G5-7)	Something suspicious is going on at the creepy cottage in the middle of campus. It has been sitting, dark and abandoned, when students suddenly start reporting that they are seeing weird lights through the windows and hearing strange noises when they walk by at night. Police suspect a break-in, but students are starting to spread rumors about ghosts. Who - or what - could be the cause? The only way to solve this mystery is to investigate! As a member of a crime scene investigation team, your child will search for clues and gather evidence. The forensic scientists-in-training will then analyze their evidence in a Penn State laboratory and help interview witnesses to figure out what's really going on. Can your junior crime scene investigator use science and their sleuthing skills to help solve the Case of the Creepy Cottage? Your child, together with Penn State forensic scientists and their new friends, will be the one to find out!
<b>Life...in Space!</b> July 22-26 (G5-7)	Until a few years ago, anyone who mentioned aliens as a reality would have been laughed at. But now, astrobiology (the study of life in space) has started to take off! If there is life out there, would we recognize it? Where should we look? What are the chances of finding intelligent life? To answer these questions, campers will peer through telescopes, build rockets, and learn how to analyze alien atmospheres for signs of life. Join this camp if you're interested in answering the biggest question of all: are we alone in the universe?
<b>Make It Matter</b> July 7-12 (G9-12)	This camp is your gateway to the fascinating world of materials science! Materials scientists have brought us amazing new technologies, such as flexible screens, nanoscale sensors, and self-folding materials – in this camp you'll explore how researchers take new technologies such as these from initial concept all the way to actual implementation. Through lab visits to meet researchers, demonstrations of cutting-edge tools, and a hands-on challenge to design and prototype your own solution to a pressing societal problem, this camp will bring the research process alive and inspire you to think about the world-changing possibilities of science and engineering in entirely new ways! <i>(Note: The first full day of camp is Monday, July 8th, but all campers will check in for an opening ceremony the evening of Sunday, July 7th.)</i>
<b>Science Leadership</b> July 21-26 (G10-12)	Do you think the world needs more leaders in science? The Science Leadership Camp is designed to prepare participants to successfully build futures that combine science with their desire to make a difference. During this experience, campers will be challenged to think about issues in their communities and articulate a vision for how they can make a difference with their leadership and scientific abilities. They will also learn from the leadership experiences of Penn State science students and faculty, explore cutting-edge scientific research, and engage in activities that will challenge them to think innovatively and creatively. Come join us at University Park for an experience you can take with you through high school, college, and beyond! <i>(Note: The first full day of camp is Monday, July 22nd, but all campers will check in for an opening ceremony the evening of Sunday, July 21st. Please also note that the camp includes a moderately strenuous hiking experience and a canoe experience at Bald Eagle Creek or Black Moshannon State Park.)</i>
<b>Penn State Pre-Med Academy</b> July 28 – Aug 2 (G9-12)	Explore the human body and the limitless options within the medical field at Penn State Pre-Med Academy! Together, we will navigate through the wonderful world of the human body to learn important anatomical and physiological structures. We won't just learn WHAT is inside your body, but WHY it is there and HOW it works (and how it can malfunction)! Our journey into the health field will include performing our own dissections using animal tissue as well as hands-on experiences with human cadavers in Penn State's Biology Lab. You'll have the opportunity to learn medical techniques, use medical equipment, and gain exposure to the amazing specialties and career possibilities that await in the medical field! (Hint: Being a doctor is not the only option!) So, what are you waiting for? Join us for our first-ever Penn State Pre-Med Academy for high school students! <i>(Note: The first full day of camp is Monday, July 29th, but all campers will check in for an opening ceremony the evening of Sunday, July 28th. *Please also note that campers will be working with preserved animal and human tissue, and/or fresh (non-preserved) animal tissue on a daily basis.* As a result, we recommend this experience only for students who are comfortable working with animal and human tissue. Human tissue is sourced from individuals who have donated their bodies to science. We observe the highest standards when working with their tissue and maintain high expectations for respect in our labs.)</i>