



**Applicant Information**

Name: [REDACTED]  
Address: [REDACTED]  
Phone: [REDACTED]  
Email: [REDACTED]

**Member Information**

College/University Name: University of Illinois at Urbana-Champaign  
Chapter Where Initiated: University of Illinois at Urbana-Champaign  
Current Chapter Affiliation: University of Illinois at Urbana-Champaign  
PKP Member #: [REDACTED]

**Co-Applicant Information (if applicable):**

Name:  
Phone:  
Email:  
PKP Member #:

**Project Information:**

Project Title: Juvenile Detention Center Science Outreach Program  
Proposed Budget Requested: \$2,500  
Project Website: N/A  
Exteranal Data Link: [https://www.dropbox.com/sh/6jf641w28m3em54/AAC3FboOb4aK1\\_1Ap54sTjkba?dl=0](https://www.dropbox.com/sh/6jf641w28m3em54/AAC3FboOb4aK1_1Ap54sTjkba?dl=0)

Has this project been previously funded by Phi Kappa Phi? YES  
If yes, what years: 2016

**Partner (if applicable):**

Project Partners: University of Illinois at Urbana-Champaign Neuroscience Program  
Project Partner Contact: [REDACTED]  
Phone: [REDACTED]  
E-mail: [REDACTED]

Budget Requested: \$2,500

Target Group: Incarcerated teens (13 - 17) at the Champaign County Juvenile Detention Center in Urbana, IL

Timeline: ~1 year (August 2017 - June 2018)

**Project Description:**

In 2014, [REDACTED], a Neuroscience PhD student at the University of Illinois at Urbana-Champaign (UIUC), founded a biweekly science outreach class at the Champaign County Juvenile Detention Center (JDC) in Urbana, IL. [REDACTED] goal was to make science accessible, relatable and exciting to incarcerated teenagers, and over the past three years, this program has seen immense expansion. The JDC Science Outreach Program now includes six graduate students teaching weekly lectures and a separate group of students brainstorming ideas for hands-on labs. Students at the JDC are still not provided a formal science curriculum and have not had specific educational needs addressed in school. We aim to inspire students to realize their intellectual abilities and independently pursue the thrill of discovery, and with the 2016 Phi Kappa Phi Literacy Grant (and a hopeful renewal), this has been made possible.

In a world dominated by new and changing technology, it is important to give these students opportunities to use cutting-edge tools to pique excitement and their own experimentation. With the 2016 Literacy grant, we have purchased over 50 new books for the JDC library, covering topics such as neuroscience, space exploration, and chemistry. We also purchased an experimental kit from Backyard Brains where students control a mechanical claw connected to their forearm via an electrical patch. This interactive teaching tool allowed the students to learn about the electrophysical properties of muscle contraction in action! Additionally, we provided a cell culture kit for students to swab their environment and grow bacteria, and demonstrated how antibiotics (hand sanitizer) affected bacterial growth. Most recently, we purchased a microscope and slides to help students visualize and understand the world invisible to the naked eye.

To promote our outreach program, we presented a poster at the 2016 Society for Neuroscience meeting (SfN) in San Diego, CA. SfN brings together over 30,000 scientists from all over the world to interact and share research and outreach opportunities. Three volunteers jointly presented at an outreach symposium where we prominently acknowledged funding from Phi Kappa Phi and how this Literacy Grant has aided our goals. In addition to receiving positive feedback from attendees at the conference, we also gained more ideas on how to expand our outreach efforts.

If awarded the Literacy grant again, there are several ways we would utilize the money to diversify our curriculum and publicize our outreach endeavors to a broad audience. We plan to incorporate more lectures and interactive demonstrations from the physical sciences, as well as purchasing more books and age-appropriate science kits to explore topics in electricity, mechanics, magnetism and optics. We plan to attend the 2017 SfN conference and additional conferences to present a talk or poster on our progress at the JDC. We are hoping to renew the Literacy Grant to continue to build on the foundation we have started, provide more tools for students to cultivate an understanding of the natural world, improve scientific literacy, and provide a more permanent means of independent study that will extend beyond our time as volunteers.

**Project Budget:**

Total Cost for Books - \$700

Total Cost for Magazine Subscriptions (National Geographic, Discover, etc.) - \$300

Total Cost for Additional Experimental Kits from Backyard Brains - \$500

Nasco's SciQuest® Electromagnetism and Current Electricity Demonstration Kit (Product #: SB50690M) - \$60.20

Thames & Kosmos Magnetic Science (Item # 10832129) - \$26.39

Physical Science Optical Experiments KIT Triangular Prism Convex Lens Physics - \$21.19

Reagents for a Food Chemistry Lab - \$100

More Slides for Microscope - \$100

Total cost for Materials for Other Science Experiments - \$500

Abstract Submission Fees for Conferences - \$200

Project Total= \$2,500