

Postdoc Workshop – 15 May 2015

Notes by Casey Leffue

“STEM Education, Outreach, and You”

Workshop led by Julie Edmonds, [Carnegie Academy for Science Education](#) (CASE)

After receiving her Ph.D., Julie Edmonds became a postdoc at the National Institute of Health. It was at NIH that she was first introduced to science education programs, through Carnegie’s former President, Maxine Singer.

Edmonds worked with Carnegie’s program called [First Light](#)

- A free Saturday Science School
 - Only elementary kids until 2004 when middle school was added
 - 18 Saturdays in three 6-week terms; 3 hours (1-4 pm)
 - Unconventional teaching methods
 - Field trips, lab experiments, mentorships

The mission, first led by Singer, then directed by Edmonds, is to provide programs that will benefit DC kids. The year 2009 marked the 20th anniversary of First Light.

The themes of First Lights’ curriculum focus on astrobiology. However, it spans many sub-foci of science that benefit from or inform astrobiological studies.

- This year it focused on robotics
- Next year it will focus on microbiology

First light volunteer opportunities include

- Mentoring and tutoring
 - Especially for internships and Science, Technology, Engineering, and Mathematics (STEM) science fairs
- High quality out-of-school and in-school STEM teaching
- STEM professional development (for practicing teachers)
- Working in conjunction with STEM schools
- Visiting students one or more times
 - Give talks
 - Contribute expertise
- Presenting at events
 - USA Science and Engineering Festival
- Judging STEM science fairs

Volunteers whose STEM sub-focus is not explored during the current term are still welcome to come help and learn.

CASE works with teachers in an attempt to stimulate interest in STEM and education in general.

- Teachers can participate in a number of ways:
 - Working with summer institutes
 - Mentoring
 - Introducing students to the STEM community
 - Working with summer STARS research program

- CASE provides training material and works to provide an atypical classroom style to target kids who are otherwise uninterested in STEM education.

Summer STARS program is for high school students

- Kids and teachers research astrobiology focus
- Six-week lab experiment
- Teachers and guest speakers lectures
- Interns paid for by the DC Mayor's Summer Youth Employment Program with stipend

Summer STARS is supported by the DC mayor's Summer Youth Employment program

- Shadowing and helping scientist at various research facilities

Julie also works in association with [Math for America](#) DC (MfA)

- A program in which interested high-quality math teachers are invited to come to teach in DC under a five-year fellowship. Opportunity to become a Master Teacher with the MfA program. Currently, there are 37 fellows.

Why volunteer with STEM education programs?

- Practice translating scientific work to the general public
- Encourage and support the next generation of scientists
- Build connections with the STEM community
- Build your resume
- Have fun!

Sign up for volunteering opportunities on the CASE website (*coming soon*)

Workshop Participants:

Geophysical Laboratory Postdocs

- Cecile Feuille
- Zach Geballe

DTM Postdocs

- Pamela Arriagada
- Jessica Donaldson
- Brad Foley
- Marion Le Voyer
- Amanda Lough
- John Platt
- Johanna Teske

Administrative Staff

- Michael Acierno
- Rick Carlson
- Robin Diemel

- Jan Dunlap
- Steve Shirey
- Robert Stern (Merle A. Tuve Senior Fellow)