

“ This internship has given me the confirmation that field research is what I want to pursue in college. If I had not had this internship, I would not have been so secure in my choice of environmental science/studies as my major. ” —TERF participant, 2009-10

How to apply...

St. Louis area 10th-graders are eligible to apply for the SIFT program starting in January and participant selections are made in early April. The SIFT application form is available for download from the Shaw Nature Reserve website from January through March. (<http://shawnature.org/>) Only current participants in the SIFT program are eligible to apply for the TERF program.

Information on current activities may be found on the SIFT and TERF blog. (<http://ebfre.blogspot.com/>)



SIFT & TERF

Partnered Programs Engaging Teens in Authentic Field Research



The SIFT and TERF programs are components of "Making Natural Connections: An Authentic Field Research Collaboration" (NSF 06-520 DRL-0739874), an informal science education research project funded by the National Science Foundation.



Mentoring the next generation of environmental scientists...

Scientifically minded teens making natural connections...

These days we spend more time exploring virtual realities and less time exploring our surrounding natural environments. This NSF-funded collaboration between Washington University's Tyson Research Center and the Missouri Botanical Garden's Shaw Nature Reserve is designed to engage St. Louis-area high school students in scientifically based exploration of the natural world. Linked programs of field training and field research provide the teenagers with experiences that realistically reflect scientific inquiry in general, and environmental biology in particular. Participating teens learn a variety of field investigation skills and then have the opportunity to put those new skills to work assisting career scientists with real research projects.

“There’s no way we can experience the ‘real’ scientific world in high school alone. So without this, we would be completely unprepared for the world we’d be entering when we graduate.” —TERF participant, 2009-10



SIFT Program Shaw Institute for Field Training

The SIFT program is a one-week summer field training experience at Shaw Nature Reserve combined with 100 hours of additional training and paid field work activities during the following school year.

During the summer, teens are introduced to a variety of Missouri eco-systems and gain skills necessary to conduct field research, including plant and animal identifications, biotic sampling and census techniques, testing of abiotic factors, and training in the use of GPS and GIS.

During the school year, teens are involved in important research and restoration activities including invasive species management, prairie reconstruction, wetland mitigation and prescribed burns.

“I am really surprised by the simplicity of it. You would think that ‘field research’ implies that it has to be really difficult, but it can be something anyone can do.”

—SIFT participant, 2009-10



“One of the main reasons I decided to participate in TERF was that I knew I would get some great experience working with professors and undergraduates before I even get to college.”

—TERF participant, 2009-10

TERF Program Tyson Environmental Research Fellowships

The TERF program is a field research internship program based at Tyson Research Center, utilizing small learning groups, near-peer mentoring, and student-scientist partnerships in the pursuit of authentic inquiry in environmental biology. Selected teen participants have completed the SIFT program during the previous year and apply their field skills to on-going field research projects at Tyson and other research sites.

During the summer, the TERF program provides teens with exposure to a variety of field science experiences and skills. TERF teens work as paid members of research teams alongside Washington University scientists, post-doctoral researchers, graduate students, and undergraduate students. School year activities are designed to provide important community outreach, emphasizing the value of research.