Women in Natural Sciences (WINS) is a free after-school and summer science enrichment program at the Academy of Natural Sciences of Drexel University (ANSU), for high school girls in Philadelphia. The program aims to increase the participation of girls in science and inspire them to pursue the sciences in their academic and professional careers. WINS offers women gifts whose households may be facing financial limitations, placing a special emphasis on households headed by a single parent, grandparents, non-parent guardians, or foster parents. The “typical” WINS student is an African American female from a single parent household with an annual family income of less than $40,000.

Since its founding in 1982, WINS has introduced over 700 girls to careers in science and other professions by: clustering their summer experiences, career and college exploration, and positive youth development. The program’s mentoring and support continues to help them today.

• 100% of WINS students graduating high school (compared to 65% graduation rate for the Philadelphia School District)
• 36% enrolling into college immediately after graduating (compared to 45% for the district)
• 56% go on to study in STEM (Science, Technology, Engineering and Math) fields

WINS students are selected within ANSU’s scientific intern or as Museum Explainers. Internship opportunities are available in various departments including the paleontology lab, histology, vertebrate zoology and biology.

In the summer of 2012, our paleontology intern from the program, along with the WINS Manager, participated in a paleontological expedition with the New Jersey Academy of Natural Sciences’ Field School in Red Lion, Maryland. The field school’s first day included an orientation giving a basic summary of the region’s geology, paleontology, and local history, as well as information on the specific sites we were visiting.

Once students have successfully completed WINS, they have the opportunity to be directly involved with the scientists, collection, and resources of the Academy.

WINS students whether they are in their expected field of study or other fields.

WHAT IS WINS ALL ABOUT?

Women in Natural Sciences (WINS) is a free after-school and summer science enrichment program at the ANSU for high school girls in the School District of Philadelphia. In addition, WINS also provides a sphere nurturing environment, a community of committed friends, and experiences not typically found in school.

WINS girls in the summer in fifth through eight grade are interested in environmental exploration and careers outside of the city. During the school year, weekly workshops and monthly field trips give the interns the opportunity to be directly involved with the scientists, collection, and resources of the Academy.

Once students have successfully completed WINS, they have the opportunity to participate in the second phase, WINS II, along with the WINS Manager, participated in the WINS II program. The program’s mentoring and support continues to help them today.

WHAT DID THE GIRLS GET OUT OF THIS EXPERIENCE?

“More interesting was found or even about the site itself. While I sat there collecting fossil fragments in that site - a large carnivorous dinosaur tooth. Saw, hammers and chisels, the group was able to get out a long bone, interesting fossils in different sites, all which had been previously visited by the field school’s team. They had the opportunity to:

- Prospect and collect fossils from the fossil beds with Expedition Leader Chris P. during the field. After they learn that fossil field, they went and prepared fossils for later work in the lab.
- Jacket and prepare fossils once they were ready. Getting to work on a real section of the dig: carrying equipment, jacketing, etc.
- Open the fossils and prepare fossils once they were ready. Getting to work on a real section of the dig: carrying equipment, jacketing, etc.
- Descend the steep 600’ Dumbbell Hill (and then climb at the end of the day) to prospect and collect fossils. We were forewarned about this site, noting that it was like sandy desert, a huge, quite a dirty area. On the second we found many fossils, spending the day collecting fossils that were a part of a different type.
- Collect amber high on a steep mountain slope. After setting up in that site of a dormant volcano, we realized something - this was interesting. We put together the site.
- Collect amber high on a steep mountain slope. After setting up in that site of a dormant volcano, we realized something - this was interesting. We put together the site.
- Collect amber high on a steep mountain slope. After setting up in that site of a dormant volcano, we realized something - this was interesting. We put together the site.
- Collect amber high on a steep mountain slope. After setting up in that site of a dormant volcano, we realized something - this was interesting. We put together the site.

At the end of the day! to prospect and collect fossils. We were forewarned about this site, noting that it was like sandy desert, a huge, quite a dirty area. On the second we found many fossils, spending the day collecting fossils that were a part of a different type.

WHAT THE PALEO LAB

Fossil collecting in the field is a part of the WINS curriculum, in Paleo Lab sessions. Interns learn a variety of paleontological and scientific processes of prospecting, discovery, excavation, lab experience many of the paleontological and scientific opportunities are available in various departments, including the paleontology lab, ichthyology, vertebrate paleontology, and local history, as well as information on the specific sites we were visiting.

WINS students who interned for 3 years said: “This experience was so positive because it helped to guide a path for my future.” Without it I would never have known what I want to accomplish and what I want to be my own field. It has taught me useful techniques for speaking and working with others, train skills, how to work towards something that you really want to accomplish and who I want to be in the future. The skills they acquire during the internships transfer to other fields.

In addition to the internships getting numerous invaluable benefits. One of the girls was in business school for 3 years old.” This experience was so positive because it helped to guide a path for my future.” Without it I would never have known what I want to accomplish and what I want to be my own field. It has taught me useful techniques for speaking and working with others, train skills, how to work towards something that you really want to accomplish and who I want to be in the future. The skills they acquire during the internships transfer to other fields.

CONCLUSIONS

Internships are important for high school students who are all their expected field of study or directly or indirectly. An internship at this age is much more than learning a science skill, it’s also about mentorship. Members at any age are encouraged. WINS can provide these responsibilities that can count on you. As a young woman in college, what they most lack about the internship is that it’s not something you can do. Luckily, when you ask what they want, Lee and Jason were there to help understand the internship project. I really loved it. My major was learning fun while teaching me how to be a team player in a workplace in a responsible task.

With the WINS program, it was opened their eyes to new possibilities. They decided that it is not what they will be doing in the future. The skills they acquire during the internships transfer to other fields.

Acknowledgments

WINS would like to thank the many foundations, schools, parents, and donors who make this program possible.