

Engaging Foster Youths in STEM

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Introduction

MonarchTeach Student Organization (MTSO) was reestablished in Fall 2021 at Old Dominion University (ODU). After the Covid pandemic new MonarchTeach students revitalized the organization, setting goals that include:

Outreach-

Reaching out to the Norfolk community around us to foster relationships.

Social-

Hosting social activities at ODU to engage students interested in STEM outreach.

UTeach involvement-

Promoting the MonarchTeach program to Old Dominion University and Norfolk communities.

These goals are with the anticipation of enhancing student teacher's skill set and engaging youth in STEM. Thanks to the efforts of the members, MTSO has been able to gain recognition in the campus community and with various partners, such as Norfolk City Public Schools and First Star ODU Academy.

First Star

The First Star ODU Academy is part of a national public charity that focuses on long-term college readiness programs for high school foster youth, referred to as "scholars".

MTSO's introduction to First Star would begin with Dr Lauren Bowers. She was introduced to the director of First Star ODU Academy, Dr. TaShara Bailey, by one of ODU's associate deans. After meeting with Dr. Bailey, Dr. Bowers approached the members of MTSO to create semesterly activities for the First Star scholars. Members of the student organization worked together to create various hands-on STEM activities. These activities not only allowed the First Star scholars to enjoy various fun events but gave the students meaningful real-world lessons.



Activities and Interview

Members become student teachers who strive to create fun and engaging activities for all events by ensuring lesson topics draw influence from various STEM fields and connect students to the exploration objective. They become responsible for planning, creating, and implementing a lesson for secondary education students, yearning to ignite a lifelong passion of learning.

The following activities solely feature scholars, mentors, and MTSO members; the day began with provided lunch, followed by a Black History Month themed socio-emotional activity, and an afternoon of exploration.



Acidic Rain and Fossils -

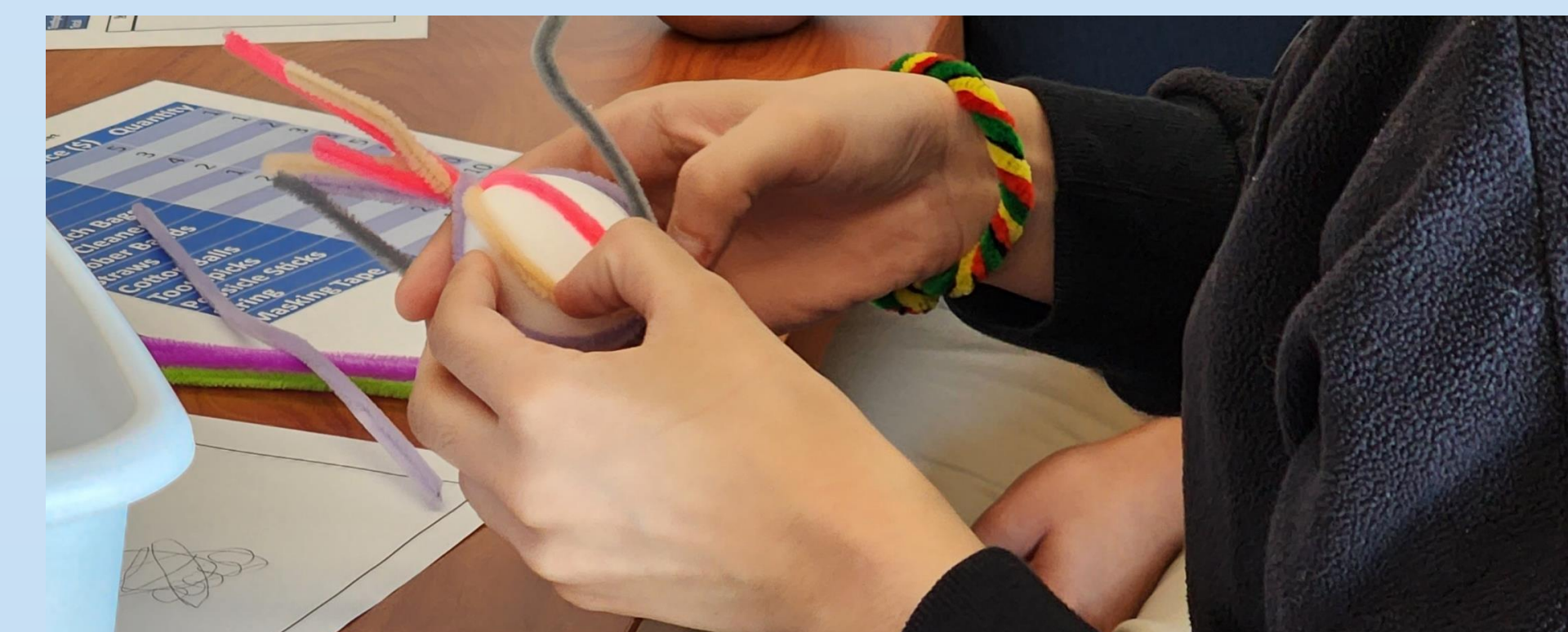
Led by: Mayli Dasalla

Chemical reactions were initiated by scholars by pouring acidic vinegar on the alkaline calcium carbonate to demonstrate ocean acidification. They witnessed how acidic liquid can dissolve the shells and connected the phenomenon to carbon output.



Jordan Woodman, MTSO President

"Dissecting star fish with the First Star Academy was my first dissection where I was the teacher. It was truly a great opportunity to expand my horizons and lead the kids through something hands on and exciting! I learned more about how to teach through a challenging activity and how to inspire curiosity of the world around us."



Budgeted Egg Drop -

Led by: Anastashia Pelletier

Scholars were handed money to spend on supplies to save their egg from a 12-foot drop. Emphasis was placed on money management and application of Newton's three laws of motion. Some saw a safe landing; others found their eggs scrambled.



Starfish Dissection-

Led by: Jordan Woodman

With protective gear and a scalpel, scholars were guided through their exploration of echinoderm guts. They tore into water vascular systems which allow the starfish to move, catch prey and breathe.

Conclusion

Dr. Bailey said it best: "representation matters." MTSO has diverse representation which allows the First Star scholars to envision themselves in STEM related fields.

First Star ODU Academy scholars were given the opportunity to participate in a lab setting with proper instruments and student-teacher instruction.

Through this partnership, MTSO members have had the opportunity to expand their knowledge and expertise in various areas, such as building relationships with other campus organizations, implementing and executing lessons beyond the classroom, leadership development, and problem-solving skills.

By hosting the STEM activities, MTSO was able to rediscover their goal of creating outreach opportunities and started long lasting partnerships in the ODU and Norfolk community.

All Uteach organizations can learn from each other. What other Uteach organizations can learn from us:

- To create relationships with other established organizations to give back to their community.
- Creating stronger bonds through both academic and social activities.
- Allow for their members to create, execute and troubleshoot community projects.

Acknowledgments

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MonarchTeach Student Organization

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Old Dominion University

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