

Science Education and Project Design Brittan Farley

College Park Scholars – Science & Global Change Program Environmental Science and Policy: Biodiversity and Conservation Biology bfarley3@umd.edu College Park Scholars Academic Showcase, May 1, 2020

Introduction

The Maryland Science Center was founded in 1797, as an amateur scientific society where members gathered to discuss recent scientific papers on astronomy, botany, zoology, and other natural sciences. Today, MSC houses 13 different exhibits, spanning from dinosaurs to the human body, and Maryland ecology to Newtonian physics.

SC1FNCE CENTER



Activities:

I was hired at MSC to fulfill two roles, a Science Educator and a Project Design intern.

As a Science Educator, I took small science demonstrations and experiments onto the floor of the museum and demonstrated them to visitors of MSC, as well as presented larger shows called "Spectacles" that more visually represented scientific principles.

As a Project Design intern, I was tasked with developing and testing experiments that MSC could take to Family Science Night at Baltimore City Schools.

Impact:

Working at the Maryland Science Center was a very useful experience, with regards to my future career path and future internship choices. I loved my coworkers and the experience I had, being able to express my love of science to kids and adults of all ages. However, while this was a rewarding experience, I would not choose science education as a career. I prefer to do more hands-on work and would rather pursue a career that fits closer to my major of environmental science and I learned that I would prefer to work outdoors and more closely with wildlife



Top: Bubble Bonfire demonstration! Bottom: MSC as seen from the Inner Harbor side.



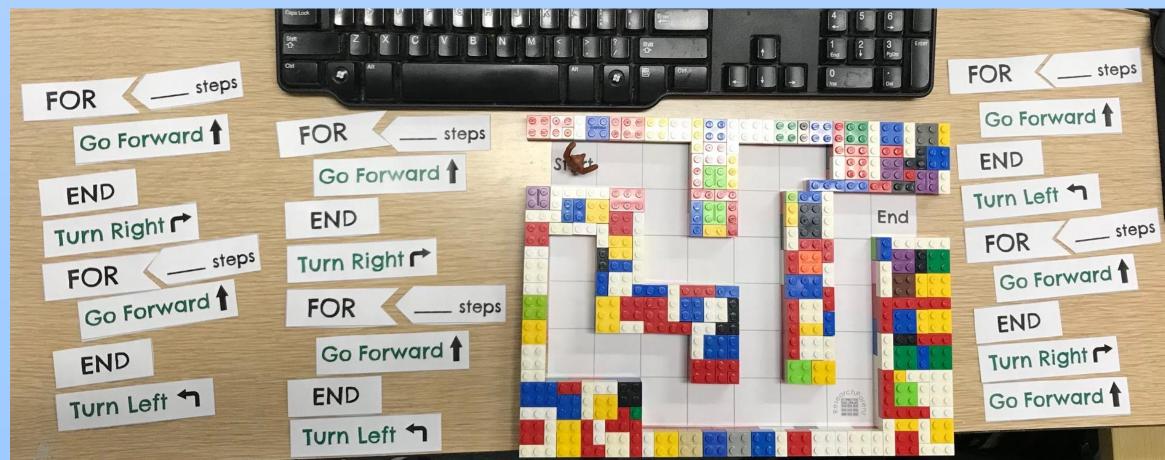
Site Information:

Name: Maryland Science Center



Top: Exploring Meteorites, an experiment I designed for implementation by MSC

Bottom: Coding a Lego Maze, an activity I designed for implementation by MSC



Address: 601 Light St., Baltimore, MD

Website: mdsci.org

Supervisors: Ashley Hansen and Samantha Blau

Mission: "We are the Maryland Science Center. We inspire. We empower. We engage. Let's Science!"

Goals: Introduce visitors to basic science principles/experiments, foster a love of science in visitors

Issues Confronting Site:

My intern project was designed to bolster MSC's Family Science Night curriculum. I was given leftover materials and free reign to explore concepts that interested me, with the end goal of creating engaging, interactive, and educational activities for Baltimore City students and their families to enjoy.



Acknowledgments:

I would like to thank Drs. Holtz and Merck for their tireless dedication to their students and to the SGC program. I would also like to thank my supervisors, Ashely and Samantha, for their willingness to let me try new things and screw up along the way!

Future Work:

The projects I design are being used at Family Science Nights in Baltimore City Schools. These projects will be used for the duration of this school year and may be used in the future if they are useful and enjoyable for the students.

Favorite Experience at MSC:

My favorite experience with MSC was presenting "Spectacles". "Spectacles" are large demonstrations that attract lots of visitors from all over MSC, and some from the Inner Harbor if it was performed outside. I was tapped to present the show called Bubble Monster, involving an explosion generated by liquid nitrogen, and I assisted on the show called Bubble Bonfire, involving a fire catalyzed with methane gas and a long lighter called a "boom stick".



Bonus Pic: The tiny name I'm pointing at is Dr. Holtz! He is featured in the Dinosaur Mysteries Hall!

