

Luccas Fonseca

Capstone

## SLA's Sky Garden

I built a greenhouse located on SLA's terrace. I chose to do this project because I love plants and wanted to introduce plant life to our school. Another reason is that I wanted to enhance students' mental health by having them nurture plants. Plants are known for their ability to improve mental health, and nurturing them makes the caregiver feel happier. School can be stressful for a lot of people. At SLA, there aren't a lot of things a person can do to relieve their stress besides being on their phone or talking to their friends. Because of that, I wanted to create an environment where anyone, student or staff, can come in and nourish some plants. My capstone fully addresses the five SLA core values. My inquiry was "*How can you reduce stress within the SLA community through gardening?*" and I've been able to answer it through my capstone. When people put their thoughts into hobbies or interests, relaxation is what they get out of it. The research was the main component of this capstone, without it, I wouldn't be able to plant seeds, build the greenhouse, and buy the garden materials I needed. I researched the size of my greenhouse and the model that would work best for SLA's rooftop as well as what type of soil and fertilizer would work best for whatever seed I wanted to plant. I had a lot of collaboration, part of my capstone is how students interact with plants which involve other students. To build my greenhouse I asked my friends for help, thankfully they helped me and we collaborated over the course of three days. For the presentation aspect,

I was able to present my ideas to Braskem. I got full funding and was able to do what I wanted. Soon, I'll be presenting my capstone to everyone who's interested in my story with this project. My reflection on this capstone is that I was able to think of a project, research it, put effort into it, and conclude it. Through this project, I learned more about how to make a difference in the environment.

This capstone took a lot of time to be where it is now. I knew what I wanted to do before senior year started and I just followed that passion. The first major thing I did to start my capstone was getting a bunch of pots and planters that were laying around the teachers' lounge and I asked Mr. Clapper, my mentor, if he knew who they belonged to. He said they were his and I asked if I could use them, he agreed. I had a meeting where I learned more about how to get funds for my capstone through Braskem. During these past months, there were a lot of obstacles I faced. My very first one was when I planted my first sunflower seeds on a Friday and left them outside on the sixth floor exposed to the elements. I didn't check the weather and my sunflower seeds got rained on for two days straight. Miraculously, they survived and grew very tall. My next major issue was taking care of the plants during winter break, nobody was going to be here to water my plants. What I decided was to ask my friends if they could take care of some plants, they took care of them and they were able to grow. The biggest problem I faced was when my greenhouse tipped over and got really dirty and decapitated my Monstera. I asked my friends to help me flip it right side up which fixed the tipped-over part but the greenhouse was still dirty since dirt and materials got thrown all over the place. On one of the capstone work days I cleaned the inside of the greenhouse and made sure it was sparkling

clean. I used Braskem as my main source of buying materials. As I said before, the presentation was really detailed and I told them what I needed and they gave me the funds. Most of my seeds came from one of my friends, Sarahi, who works at a community garden and was eager to help me start my capstone by donating some seeds. I got my grown plants from a plant trading event located at The Cliffs of Callowhill. I went with friends to trade seeds for pots and plants and it couldn't have gone better. I left the place with a lot of plants, extra seeds, and some pots.

I became passionate about gardening and plants because of both of my grandmas, one taught me how to grow plants and the other taught me how to use them in my day-to-day life. I'm from Brazil, a land known for its biodiversity and flora. Because of that, my capstone will reflect a piece of who I am and where I come from. I'm proud of all I was able to achieve and that I could finish whatever I started. Despite not utilizing my materials to their fullest potential, I put all of my efforts into this project and it came out better than what I could have expected. This capstone is significant because it opened a door of possibilities for SLA's future seniors. My capstone isn't like other capstones, it can be used in a lot of different ways rather than just one. You can plant, relax inside with the plants, and even collaborate with other cultivators. I gained a lot of knowledge during this process. Things will be done if you try to get them done. To me, it was really exciting that what I had planned back in September was able to become reality because I took the steps I thought were necessary. If I could redo this capstone, I would have more meetings with my mentor. I only checked in with my mentor about one to two times per quarter and I wish I would've done it more since he gave me ideas on what I could do.

Something else I would've done is buy a bigger greenhouse since the dimensions were smaller than how I thought they would be. Overall, this capstone has had a lot of ups and downs and I've been able to steer it in the direction I wanted.