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April 17, 2020

PGC Climate Action Project Summary

Proposal/Vision

My climate action project, titled "Circular Campus," is designed to increase my high school's sustainability by mirroring the principles of a circular economy. One of the major elements of this project is called the Conscious Cafeteria, a program focused on increasing the climate-friendliness of Carlmont's cafeteria structure by implementing diverse, low-carbon recipes to the menu. We are starting a hydroponics herb greenhouse at school to grow various herbs, such as basil, bok choy, spinach, and lettuce, which will be incorporated into our cafeteria's meals.

My team has also partnered with our school's Associated Student Body (ASB) to build a Carlmont Community Garden to commemorate the Class of 2020 and promote environmental literacy in our community. The wheelchair-accessible garden will feature pollinators native to California and utilize the compostable food scraps from our kitchens and local stores, such as the Belmont Starbucks. Our garden will beautify our campus, divert waste from landfills, and nourish the incredibly fragile, yet incredibly important population of pollinators.

Our compost system involves two main components. The first component is the campus cafeteria and the large, green composting bins that Green Team maintains around campus. The cafeteria and the bins will collect green material, which the Compost Team collects to go into our second component, which consists of a single chamber and double chamber compost tumbler. Every two to three weeks, the compost from the tumblers will be mixed into the topsoil of the garden to ensure that our soil contains healthy nutrients.

A group of experienced gardeners from our Garden Team will spend one month teaching new student volunteers from Carlmont Green Team and potentially Carlmont Key Club about how to garden and compost. The one-month period, called the Volunteer Training Program, will ensure that all students have the skills necessary to contribute to the health and success of the Carlmont Community Garden. Additionally, at least one Garden Mentor will be present at every gardening session, which will occur one to three times a week during the school year and summer.

Overall, the Circular Campus is a circular system involving our school kitchen, students, and local restaurants and shops that promote on-campus sustainability and waste reduction.

Team

My team is composed of all students in grades 9-12 from the Carlmont Green Team. They are split into 3 teams: Research, Garden, and Compost, to volunteer in their areas of interest. All of our communications happen via Discord, and each team is organized into its own channel. Visit the following link to see everyone's pictures and bios! (note: This project was previously called "Conscious Cafeteria," but it has been changed to "Circular Campus" to encompass all project elements more effectively.) <https://drive.google.com/file/d/1CDKyAvablsRtD1WAYKJBgcPbUAQxidPF/view?usp=sharing>

Budget

Besides the \$250 given from PGC, my team received a \$5,000 budget from the SMC Office of Sustainability's [Community Garden Partnership Program](#) to build garden and compost systems, which include a native pollinator garden and hydroponics herb greenhouse located on Carlmont's campus. Materials that will be purchased with this funding include shovels, seeds, compost tumblers, peat pots, mulch, compacted granite, garden beds, and hydroponics supplies.

Goals

By teaching volunteers how to compost and maintain a garden, I hope this initiative will inspire them to recognize the fun and beauty that comes with composting and gardening. Consequently, the Volunteer Training Program will hopefully create a ripple effect as students use their newfound knowledge to start their own gardens and compost systems in their own homes. More broadly, the Carlmont Community Garden, which will be placed in a central spot on campus, will feature eye-catching signage that promotes compost awareness and biodiversity conservation within the student body at large.

By carrying out the processes outlined above, the Circular Campus team hopes to succeed in its overarching goals of diverting food waste from landfills, increasing biodiversity, enhancing environmental literacy on campus, and improving the overall wellbeing of students and the planet.

Progress

Although this project is still unfinished, my team has cleared the major hurdles, and we are eager to continue maintaining the garden(s) throughout the summer.

We have finalized a design for the native pollinator garden, and we are planning on having it fully built by mid-May. We are working on completing our order to purchase the materials we need, so we are nearly done!

We will start our hydroponics herb garden as soon as our materials have been shipped to our school. We have already completed all necessary research on pH levels, plant nutrients, etc., so we are hoping to start in May or June!

As for the cafeteria, we reached out to the district chef and food service supervisor and sent them our [Recipe Book](#). Although the recipes they are currently using cannot be altered due to COVID, they offered to organize a taste test with the recipes in our document in the future! We have been collecting food scraps from local restaurants to put into our compost tumbler, which we plan to use to nourish the soil in the Carlmont Community Garden.

Challenges

Like many others, I struggled with the COVID restrictions, especially during the beginning. Because of this, I was unable to do as much as I hoped with the cafeteria, like partnering with the Conscious Kitchen and implementing biodegradable material.

One of the underclassmen on my team asked, "What will we do without you next year?" When I realized I only had 2 months left as a high school senior, I had to think about how this group would be maintained in future years. As such, I established a leadership system in which the graduating heads of each team will pass on their role to an underclassman, who will continue the gardening efforts and expand the project. I hope that the efforts of this initiative will flourish for years to come, and I will continue to check in with the team while at college!

Pivots

Instead of focusing on the cafeteria, I decided to put our energy into building the garden/compost systems outlined in my PGC project proposal. I am very proud of how everything has turned out, and I'm excited to see the resulting product!

Hopefully, next year's Circular Campus team will pick up where we left off on the Conscious Cafeteria program and work to organize the taste test procedures with the low-carbon recipes that we introduced.