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REFLECT

When I first stepped into this program, my vision for the future felt like a narrow hallway, dimly lit, with only one door at the end that I thought I had to walk through. I was set on one path, unsure of what else was out there or even possible. But each day in the lab and professional development opened a new window, letting in light, new ideas, and different perspectives I had never considered before starting this program. Slowly, that hallway turned into a room full of open doors, and I began to see myself exploring futures I hadn't imagined. Lacking the exposure to many different professions while in high school, many people are led to the big four: doctor, lawyer, engineer, or nurse. I wanted out of the tunnel vision; I needed exposure and guidance.

When I first stumbled across this opportunity through the LAS department here at "Iowa State", it was my initial spark, "Yes, something different", I whispered to myself. Going through the application process, I was confident, even though I was uncertain about how I would fit into a profession-specific program like such. Due to my love for the STEM field, I kept moving forward with the application process gracefully. Navigating through, I earned a summer of change and a summer that will impact me and others rest of our lives professionally and personally. The spark of curiosity this summer lays within me; I just needed to look beyond the surface level to find my true calling.

Leading up to my REU experience, I had just completed my first year at Iowa State University. Before starting my REU, I was still figuring out what research meant beyond textbooks and classroom labs. I didn't fully grasp the patience, curiosity, and collaboration that go into producing meaningful scientific work. My time in the McDaniel Lab opened my eyes to the depth behind the data. Being surrounded by people genuinely passionate about soil, microbes, and sustainable farming practices helped me see how small efforts can contribute to a much larger picture. Even simple tasks like sifting soil or recording measurements taught me the value of precision, persistence, and teamwork. More than anything, this experience helped me feel like I belonged in research spaces to help contribute to my future classroom. It showed me that science isn't just about the results, it's about the process, the questions, and the people you grow with along the way.

FIGURE SOMETHING OUT

This hands-on research helped me understand how vital microbes and soil health are for sustainable agriculture. It also showed me that learning in STEM doesn't always have one correct answer; it's about testing, making mistakes, and learning from the process. I now see science as more creative and connected to everyday life, especially food, the environment, and climate change. Overall, this experience helped me become more confident in doing science, not just learning about it. It opened my mind to new careers in research and sustainability, and reminded me that learning happens best when you're curious and actively involved with the process.

This summer, Curiosity was pushed on us hard by mentors and heads of the program, ensuring that we knew this was about us. Making activities students' choice, driving topics

FIGURE SOMETHING OUT (Continued)

that students want to learn, and creating hands-on activities is how this research experience will positively affect my future classroom culture. I faced some barriers and uncertainties this summer: my major at Iowa State wasn't yet pre-teaching. So many times I felt that the people around me spoke a different language than I did due to having an aligned view with each other. Many around me taught for years, or some would enter their first classroom in the fall. So, feeling distant is the conversation did sometimes led me into internal uncertainty. Still, I never stopped listening to my internal motivation and external motivators, because that was one of the things that fueled my curiosity. Some habits and skills that I felt kept me going are building relationships with people in my lab, due to spending long days doing one task, not creating relationships will force you to focus on the wrong things. I took many days doing the day-to-day activities in my REU 3-ring binder to destress, like meditation, going on walks, and nature bathing. As I try to pursue teaching, one of the skills I will be using is giving everyone an uninterrupted time to talk in my classroom and being a student-led teacher, even if my other coworkers believe in different teaching methods.

MAKE CONNECTIONS

Designing curiosity-driven learning experiences goes far beyond simply creating an activity. What truly makes a difference is meeting students where they are, starting with open discussions when introducing a new topic to understand their current knowledge, questions, and interests. This helps build a learning environment that feels personal and inclusive. One powerful approach is to begin activities with observation. Allowing students time to quietly reflect, notice, and process before diving into content gives them space to engage with their thoughts and build genuine curiosity. It also reminds us, as educators, that we must model curiosity ourselves. To teach curiosity effectively, we must practice it by asking questions, exploring ideas openly, and showing excitement about discovery. A quote that stuck with me during this program is: "Schooling isn't learning." It highlights the difference between going through the motions and engaging students in meaningful learning. It's easy to rely on worksheets and grades, but real learning happens when students feel safe to wonder, explore, and make mistakes. As teachers, we should create spaces where learning is not just about memorization, but about thinking, questioning, and growing.

Investigating real problems is the most important for our society today. Many students feel like the classroom material isn't connecting back to the real world, which is creating a disconnect between students and teachers. One way is to build spaces and agendas where students connect to their local communities, before branching out to worldwide issues. Addressing regional issues will encourage students to ask more profound questions, leading to more complex answers later. One important story I will share is how all sciences are connected through academia with the common goal of sustaining all life here on Earth. Before coming to this program, I heard about climate change but never got too close to a topic to eye opening like the ones we had here during this program. I will make an impact on our climate in a more positive way. My mentor taught me that we never stop being in the learning process, even as educators, and also, having uncomfortable conversations is one of the first steps to change in any situation.

PREPARE FOR WHAT'S NEXT

I'm open to keeping a relationship with my mentor and lab partners. Due to their welcoming spirits, I never had a dull moment at the lab. Everyone shared their personal experiences and their goals with me. Making this such an easy process, having endless conversations with my family about my summer is such a blessing. During my sophomore year of college, I plan to work less and focus more on school, networking, and volunteering in my local community. One of the most important things to me is being involved in on-campus activities that reflect my true identity. I'm also learning to destress, slow down, and be present in everything I do. Sometimes when life gets too stressful, I run on airplane mode, which leads to exhaustion and too many down days, so I'm actively working on that and will probably continue to work on it for the rest of my life. I will foster and support curiosity in myself and my future students by modeling excitement for learning, encouraging questions without judgment, and creating a safe space where exploration is celebrated. I'll bring in real-world experiences, start lessons with open-ended observations, and guide students to connect their interests to what they're learning. I also hope to collaborate with other educators and stay updated on innovative teaching methods so I can constantly grow as a curious learner and mentor. By staying curious myself, I can inspire my students to do the same.