Elisa Soosloff
Creston Community High School, IA

REFLECT

Coming into the program I knew I wanted to explore more ideas related to cross-curricular teaching, and integrate more applications of math into my classroom. When we began exploring ideas related to genuine environmental issues in the classroom I was surprised, as normally those topics are avoided in a classroom due to political controversy. I have always said that my goal is to teach the learner, not the topic; to help my students develop as people and see my classroom as a safe space. This program managed to show me that there are many ways of using real applications and ideas to help show students ways of seeing how the world is all interconnected, and allow them to explore their questions and ideas without triggering political debate. The next question was how best to make these changes.

A student survey made it clear that students want to be curious, challenged and have a voice in their learning. This idea of increasing autonomy combined with the new ideas the program was giving us really helped me bring back that spark from my first year teaching. It's easy to say everything you want to do and add, but not always easy to keep momentum going to get it all done amidst the chaos. The professional development and applications of my research really helped me to see avenues of how I can focus on developing my own classroom, regardless of what's happening around me.

My research was really a large influence on this newfound confidence in my ability to help my students explore. Even with my experience being in a classroom and my coding skills being in a developing stage, I was able to jump in and make connections. In my research we discovered a large spike in NDVI in the summer of 2020. NDVI, an indicator of vegetation and crop health, has been shown to have a strong correlation to yield. Due to this connection it became an exploration of seeing what caused it in order to see if it's replicable. I was able to trace it down to black carbon and show a significant correlation between the two. If I can do all that in a short 5 weeks in the lab, who says that students can't explore topics just as deeply throughout a semester?