

## Climate Across the Curriculum

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*WashU partners with Gateway STEM High School to connect students to opportunities in the sciences*

The Washington University Center for the Environment, with support from an AEESP Foundation Grant, has been developing a relationship with Saint Louis Public School's Gateway STEM High School for the past 5 years. This Climate Across the Curriculum project was developed to support equitable, interdisciplinary, and solution-oriented climate change education in the St. Louis region. The projects specific goals are to:

- connect research expertise at the university to increase high school students' awareness of climate change and environmental justice issues and solutions.
- strengthen science communication skills of students from high school, to undergraduate, to graduate study.
- promote opportunities in environmental engineering undergraduate studies to a diverse high school student population.
- enable students and faculty at Washington University in St. Louis to align with our institutional mission to contribute positively to our home community of St. Louis, and to effect meaningful, constructive change in our world.

In Spring of 2024, the AEESP Foundation Grant supported the development of an English unit that used various environmental justice themed texts to engage students in non-fiction language standards aimed at building stronger science communication skills. Connecting these standards to local issues, this unit engaged students as active citizens who must understand the science of their lived experiences, and hone their ability to effectively read, write, and speak for change.



### **2024 Activities**

Students used texts including *the St. Louis Environmental Racism Report* and *Notes from an Extinction* by Elizabeth Kolbert to dig into 10<sup>th</sup> grade language standards as they prepared for their end of course exam.

During this unit, four experts from Washington University in St. Louis visited the classroom to answer questions about climate and environmental impacts, teach about current research projects, and share various career pathways.

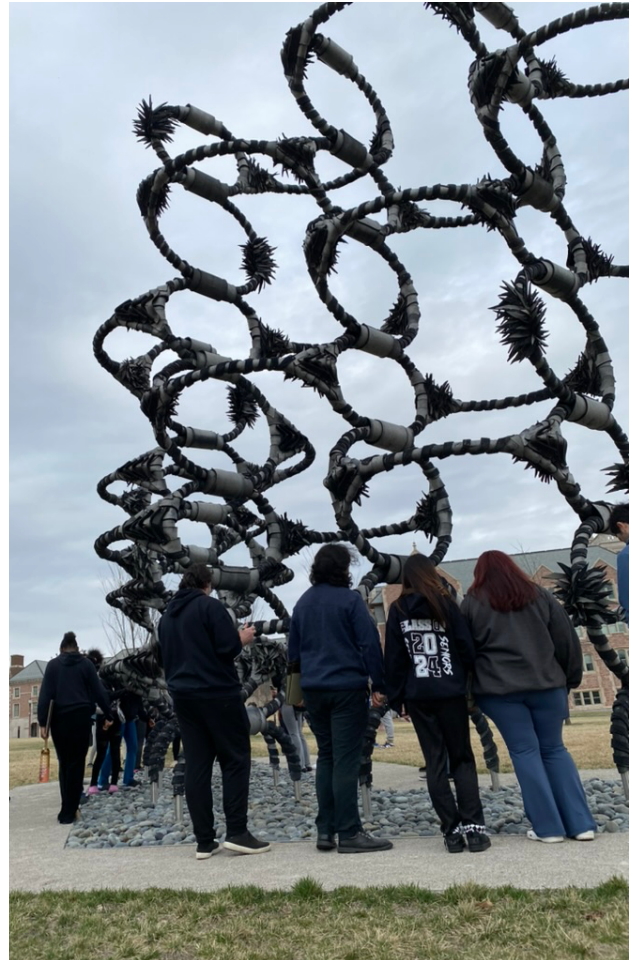
Students participated in two field trips to campus where Gateway students participated in a Q&A session with visiting science writer Elizabeth Kolbert. Collete Morton served as a moderator, shaping the conversation and allowing students to ask their own questions of the science communication expert.



On campus students toured two engineering labs, participating in curated experiments to simulate the scientific process and expose students to different tools and methods used in the laboratory.



Students toured exhibits at the Kemper Art Museum including ‘Santiago Sierra: 52 Canvases Exposed to Mexico City’s Air’ and ‘Chakaia Booker: Shaved Portions’. WashU Arboretum founder and curator Stan Braude, PhD led students on a tour of campus trees. Using former WashU faculty member and two-time Poet Laureate Howard Nemerov’s *Learning the Trees* poem as a framework to observe, appreciate, and learn about trees. Students learned about tree identification as well as foraging.



Students ultimately installed a PM2.5 air quality monitor in their classroom to observe air quality at school. WashU experts taught students how to access and understand the publicly available data and learn about the research group’s larger, city-wide projects.

### **Continuing Partnership**

The partnership between Gateways STEM High School and Washington University has been strengthened and renewed through the support of the AEESP Foundation Grant. The 2024 Climate Across the Curriculum Project impacted close to 175 students from the St. Louis Public School district which serves a student population that is 77.8% Black, 5.8% Latino, 12.9% white and 3% Asian with 73.4% of students eligible to participate in the federal free and reduced-price meal program. As this partnership has continued, faculty visited Gateway STEM high school in the spring of 2025 and are schedule to visit in 2026. Students have continued to visit campus, attending classes to connect with undergraduate students learning about environmental justice and engaging with various exhibits at the Kemper Museum. We continue to find ways to deepen the connection between students at Gateway STEM High School and WashU.