



RUTGERS–NEW BRUNSWICK Graduate School of Education



Making Community Curricular: Co-Designing Community-Based Science Curriculum Toward Heterogeneity, Justice and More Thriving Futures

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University of California, Irvine

12:00pm–1:00pm
Wednesday, October 28th, 2026



**Connect with colleagues during this virtual presentation at the GSE (Room 124).
Lunch will be provided! Can't attend in person? Join us remotely via [Zoom!](#)**

Science, as a discipline, has traditionally been positioned as objective, ahistorical, and apolitical. These dominant views of science are reproduced in science education where disciplinary learning is often disconnected from students' everyday knowledge, experiences, ways of making sense of the world, and, consequently, science content. Building on justice-centered science and familial rightful presence frameworks, this study examines the design and implementation of a community-based science unit in a third grade classroom. The talk will explore the co-design process, how family and student knowledge was integrated into the design of a formal science curricular unit, as well as the impacts of the work on families, students and the teacher. By centering community knowledge in the design of formal science curriculum, this work seeks to move beyond simply making science relevant to students' lives and toward (re)defining ideas of what counts as scientific knowledge and who holds scientific knowledge. Ultimately, this work seeks to consider how community-based science can reimagine the relationship between schools and communities, support multiple ways of knowing and engaging in science, and contribute to more just and thriving community futures.

Symone Gyles, PhD, is an Assistant Professor of Science Education at the University of California, Irvine. As a learning scientist, she studies the design, implementation and impact of community-based, culturally responsive and justice-centered science curriculum and instruction. Informed by her experiences as a marine scientist and middle school science teacher, she is particularly interested in curricular and instructional practices that redefine power and expertise in teaching and learning towards more heterogeneous ways of thinking, knowing, and doing, and valuing the lived experiences of students, families and communities in science. Her work has been published in Teachers College Record, the Journal of Research in Science Teaching, and Cultural Studies of Science Education. Her article, Exploring science teachers' efforts to frame phenomena in the community, received the 2024 National Science Teacher Association (NSTA) /National Association of Research in Science Teaching (NARST) Research Worth Reading Award. She is a current 2026 Spencer Postdoctoral Fellow.