

The Power of Race and Ethnicity in Teaching Chemistry



**[Image description:
 Professional photo of Kim
 Conner-Davis. A Black woman
 with an afro, smiling.]**

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The chemistry classroom is the perfect setting to analyze how race and ethnicity impact marginalized students' individual and community identities. Teachers can design a learning experience in a racial and social justice phenomenon that fosters the critical analysis relevant and meaningful to the students they teach via conversations, research, and experimentation within the classroom and the communities in which the students live. By taking this approach, teachers can

use race and ethnicity as launching points to grab students' interests and deepen the content knowledge in chemistry education versus using race and ethnicity as a subtopic or never mentioning race and ethnicity in teaching chemistry. Essentially, students will understand how chemistry impacts their lives by recognizing patterns and gaining greater interest and appreciation of the world in which they live, corresponding to students understanding their fit and their power in the world of chemistry.

Chemistry students can explore the following topics via a racial and ethnic lens and apply chemistry laboratory skills:

- Hair Bonds and Products
- Heavy Metal Contamination in Urban Soil and Drinking Water
- The Science Behind Drug Tests
- Thermodynamics of the Cardiovascular System
- Elevated Cancer and Asthma Rates in Areas of Marginalized Populations
- Access to the Appropriate Healthcare and Medication
- Mortality Rates of Expectant Mothers of Color
- Elevated Hypertension and Heart Disease Rates Among Marginalized Populations of People
- The Impact of Food Deserts
- Anemias - Sickle Cell, Thalassemia, etc.
- The Use of Pesticides
- Race and Toxic Wastes
- Urban Air Pollution Inequities
- Prevalence of Diabetes in the Black Community
- Crime Lab Analysis



embRACE: Episode One
The Intersection of Race and Chemistry
Dr. Ayanna F. Brown – Equity Fellow – Illinois
Featured Guest: Kim Conner-Davis, Science Educator

