Using storytelling and a justice oriented STEM after-school club as critical tools for cultivating African American youths' STEM identities: Advancing Informal STEM Learning | AWARD # 2214740

Community Partners: Urban League of the Upstate, Littlejohn Community Center, The Concerned Citizens of Tillery

PI: Dr. Renée Lyons, reneel@clemson.edu

Co-Pls: Dr. Corliss Outley (Clemson University)

Dr. Rhondda Thomas (Clemson University)

Dr. Gail Awan (Urban League of the Upstate)

# **Project Description**

We empower African American youth to identify environmental problems in their own communities, conduct scientific investigations, and create and implement action plans to address those issues. We accomplish these goals through a graphic novel and STEM Club curriculum built upon the components of radical healing.

# **Key Achievements**

- What have you accomplished to date? What are the broader impacts to the field?
  - Currently running first cohort of community STEM club
  - Justice-Oriented STEM investigation in progress (youth are collecting data on sewage gases contaminating their community center)
  - First draft of STEM Club Curriculum complete
  - First draft of graphic novel complete
  - Youth advisory board feedback for improvement of graphic novel and STEM Club Curriculum
- What have you learned (including learnings about what didn't work)?
  - Need to expand youth age limits for participation
  - Difficulties faced when multiple community/university partners collaborate (issues around ownership)
  - STEM Justice Investigations inherent in community based work (team did not have to look for an issue to investigate)

# **Audience & Settings**

**Audience**: African American Middle School Students (now expanded to youth 4th-10th), African American Clemson University STEM majors

## **Disciplinary area**:

General STEM, environmental justice, radical healing

### **Learning environment**:

**Community Center** 

### **Access and Inclusion**

How does your project consider/address equity and who is included?

MSMS builds knowledge by exploring radical healing as an approach to embed inclusion and equity into informal STEM programming. It provides African American youth a neutral space for them to develop their science identities.

# Using storytelling and a justice oriented STEM after-school club as critical tools for cultivating African American youths' STEM identities: Advancing Informal STEM Learning | AWARD # 2214740



This material is based upon work supported by the National Science Foundation under grant 2229061. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.