

**Donald McKinney Philadelphia STEM Ecosystem Community-Based Learning Conference
Workshop Presenters**

| Name | Title | Description | Room |
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| Session I: 12:30 – 2:00 pm | | | |
| 1. Caitlin Hearn Science/Physics | Reducing Waste at Philly Events | This workshop will address recycling waste from the NFL Draft activities and other major tourist events in Philadelphia (Pope’s visit, Science Festival). Participants will explore how to design a community-based learning activity around information gathered from recent newspaper articles as well as information from GreenWorks, Philadelphia’s Sustainability Plan. | 300 |
| 2. Victor Donnay Math Environmental Science | Using Math to Reduce our Carbon Footprint | In this hands on workshop, participants will examine the energy costs and potential savings from using different types of light bulbs and then consider projects that students could do in the school and community that will put this knowledge to work. We will discuss how such curriculum initiatives could support the School District's new GreenFutures sustainability initiative. | 301 |
| 3. Kathleen Walsh Engineering/Science | How an engineering based learning project to solve a community problem changed student motivation in my science classes | In this workshop, participants will engage in the engineering design project as a tool for looking at how to come up with creative solutions around the health issue of obesity in many communities. The driving question that participants will be exploring is : Can drinks be re-designed to have less sugar, and still taste good, to help prevent these diseases? How might we redesign our drinks to be healthier and still taste good? | 302 |
| 4. Kathleen McKinley Math | Community Based Mathematics Projects for High School Students | In this workshop, participants will explore the question - Can neighborhood crime and vandalism be controlled with increased access to recreational activities and centers? Participants will research their area of concern. Utilizing the PBL template for project based learning, concept mapping, and implementation timeline. They will develop a sample project for a concern identified either in the Haines – Stenton Philadelphia region or for a region that will be applicable to their current instructional location. | 303 |

| Session II: 2:00 – 3:30 pm | | | |
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| 5. Jim Finley Biology Environmental Science | Understanding water quality data. | Participants will analyze actual, multifaceted EPA data for the Snake River. Additional data set from the city of Philadelphia water works and Aqua water will be analyzed. A variety of water analysis activities will also be available for evaluation. | 300 |
| 6. Caroline Ebby Janine Remillard Math | Incorporating Community Assets into Mathematics Teaching and Learning | The Community Based Mathematics Project of Philadelphia: This session will introduce a framework for increasing access to mathematics by leveraging local resources in the community. Participants will engaged in an investigation situated in local context and explore additional ideas and resources for designing locally relevant mathematics lessons. | 301 |
| 7. Lorraine Howard STEM | Spark + Fire + ASAP = Youth Changing the World | This workshop will guide participants in helping their students to identify their SPARK (their interest) and FIRE (an issue in their community they feel passionate about) which will promote a Classroom with a CAUSE . Thinking globally, but acting locally, we will explore the 17 Global Goals for Sustainable Development and the participants will leave the workshop with a practical strategy framework in addressing how to combine SPARK and FIRE to do something ASAP (Awareness, Service, Advocacy and Philanthropy) in their community. | 302 |
| 8. Paula Miller Environmental Science | How to build a futuristic green school | In this workshop participants will be introduced to Aspen Challenge, “To empower our Community to heal Plant Earth.” Strategies that will be addressed include: 1. Reducing the amount of storm water by rain gardens Lab: Which type of soil drains the best? 2. Building a 3D model of school using Google maps and everyday materials Activity to distinguish between aquaponics, hydroponics and aeroponics | 303 |