

Workshop Session I: 12:30–2:00

Reducing Waste at Philly Events

Participants will design a learning activity that has students address the problem of recycling waste from major tourist events such as the NFL Draft, the Philly Science Festival, or the Pope's visit

Using Math to Reduce our Carbon Footprint

Participants will examine the energy costs and potential savings from using different types of light bulbs and then consider projects that puts this knowledge to work in their schools or communities

How engineering-based learning projects that solve community problems can alter student motivation

Participants will develop creative solutions to a major community health problem – obesity and diabetes – by engaging in the engineer-design process on an issue that students can relate to: how to develop healthier beverages that still taste good

How to Build a Futuristic Green School

Participants will design a futuristic school by exploring rain gardens as a water management system, building 3D models of their school via Google Maps and everyday materials, and distinguishing between aquaponics, hydroponics and aeroponics

Workshop Session II: 2:00–3:30

Community Based Math Learning - Can Better Access to Rec Centers Reduce Vandalism and Crime?

In this workshop participants will explore the question: Can better access to Recreation Centers reduce vandalism and crime?

Participants will research their neighborhood data and develop a sample project that addresses a concern in their community

Incorporating Community Assets into Mathematics Teaching and Learning

This session will introduce a framework for increasing access to mathematics by leveraging local resources in the community. Past projects had students research the numbers of basketball courts in the community, finding a site and fundraising to build a new court

Spark + Fire + ASAP = Youth Changing the World

This workshop will demonstrate how to help students identify their interest (their spark) and an issue in their community they feel passionate about (their fire). Thinking globally, but acting locally, participants will explore the 17 Global Goals for Sustainable Development and develop a practical strategy framework to combine Spark and Fire to do something ASAP (Awareness, Service, Advocacy and Philanthropy) in their community

Understanding Water Quality Data

Participants will analyze data from the Environmental Protection Agency (EPA) Snake River, and from the Philadelphia Water Works. A variety of water analysis activities will be available. Participants will explore how the data can be used in clean-water community-based projects that impact health