

Team Name & School: Blueberry Jam at South Atlanta High School

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Green Heart Action Plan

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Problem Definition/ Problem Statement

Global warming is when the Earth's temperature rises because humans release too many greenhouse gases, like carbon dioxide, into the atmosphere from things like driving cars and using electricity. This happens because these gases trap heat like a blanket, making the planet get hotter over time.

This problem impacts Atlanta because the city is known as a "heat island," where all the concrete and buildings soak up heat and make the city much hotter than the surrounding rural areas. Because of global warming, Atlanta is seeing more extreme heat waves and unpredictable storms that cause heavy flooding in neighborhoods that aren't prepared for it.

Root Cause of the Problem

The root causes of the problem include:

- High levels of greenhouse gas emissions from transportation and electricity use
- Urban development with concrete and asphalt that trap heat
- Loss of tree cover and green spaces that normally cool the environment
- Increasing city growth, adding more buildings and roads that hold heat

List at Least Three Credible Resources that Support Your Problem Statement

<https://climatecheck.com/georgia/atlanta>

<https://www.climatecentral.org/climate-local/41380>

<https://science.nasa.gov/earth/earth-observatory/global-maps/land-surface-temperature/>

<https://urbanclimate.gatech.edu/>

Proposed Solution

With simple projects like planting trees, painting small areas of pavement with reflective "cool coating", or building rain-garden planters, we can reduce heat and absorb stormwater in places that flood easily. We can also make posters to teach others about heat and flooding risks and organize clean-ups to clear drains so neighborhoods don't flood as much.



How We Will Measure Our Success

We will measure success by tracking:

- The number of trees planted or cool pavement areas installed
- Reduced flooding in areas with rain-garden planters
- Community participation in cleanups and climate awareness events
- Observing cooler shaded areas and improved storm water drainage

Who are Decision Makers We Need to Reach

To create change, we will need support from:

- *Local school administrators*
- *City of Atlanta Department of Sustainability*
- *Environmental Nonprofits*
- *Community organizations and neighborhood associations*

Our 3-5 Step Plan for Change

1. Identify the heat-risk areas in the South Atlanta community that need shade or flood control.
2. Partner with local organizations, volunteers, and other schools in the South Atlanta cluster to organize projects.
3. Use funding and donations to buy trees, reflective paint, and materials for rain gardens.
4. Host community action days to plant trees and build rain garden planters.
5. Track project results and share outcomes with the community.

Impact & Equity

These projects would help cool down hot spots in our neighborhoods, reduce minor flooding, and make outdoor areas safer during heat waves. More shade and reflective surfaces lower temperatures, while rain-garden planters help manage stormwater. This can also inspire others in the community to take action, showing that we young or old people can make a real difference in fighting climate problems in Atlanta.

What Help We Need to Be Successful

To succeed, we will need:

- Funding and donations for trees, reflective paint, and rain-garden materials.
- Support from community volunteers and students.
- Partnerships with local environmental organizations.
- Permission from the city or schools/district to plant trees or modify sidewalks

