

Team Name: Pollution Police

Teacher Name: Ashley Washington

Green Heart Action Plan

Problem Definition/ Problem Statement

The average middle school student typically needs at least three pairs of shoes each school year to accommodate growth, wear and tear, and various weather conditions. Parents are currently spending between \$100 to \$150 per pair of shoes. In households with multiple children and considering the effects of inflation, it can be challenging for families to meet these footwear needs, which may result in students wearing improperly sized shoes or being unable to fully participate in activities. To support our students and their families, our school intends to implement a program focused on teaching students how to upcycle used shoes, while also providing access to a system for exchanging them for other upcycled shoes in their appropriate sizes and saving the environment from pollution.

Root Cause of the Problem

Students often prefer not to wear outdated or worn footwear. Additionally, many parents may have difficulty affording new shoes on a regular basis, even if students require them. Unfortunately, this leads to shoes being discarded or neglected, contributing to excessive waste. The materials used in shoe production do not decompose naturally and typically end up in landfills, which can result in environmental pollution, as it may take decades for these materials to break down.

List at Least Three Credible Resources that Support Your Problem Statement

The Challenge. The Challenge – Green Heart STEM Challenge – WIND. (n.d.).
<https://herofortheplanet.org/greenheartwind/welcome-wind/the-challenge/>

Back-to-school shopping statistics (2024): Yearly Sales Data. Capital One Shopping. (2024, July 14).
[https://capitaloneshopping.com/research/back-to-school-shopping-statistics/#:~:text=Back%2Dto%2DSchool%20Budget%20Statistics,school%20consumers%20budget%20over%20\\$500](https://capitaloneshopping.com/research/back-to-school-shopping-statistics/#:~:text=Back%2Dto%2DSchool%20Budget%20Statistics,school%20consumers%20budget%20over%20$500)



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5 eco-friendly ways to give your worn-out shoes a second chance. Valentina Calzature Firenze. (n.d.).

<https://www.valentinacalzaturefirenze.com/en/blog/shoes-tips/5-eco-friendly-ways-to-give-you-r-worn-out-shoes-a-second-chance>

Proposed Solution

To support our students and their families, our school intends to implement a program focused on teaching students how to upcycle used shoes, while also providing access to a system for exchanging them for other upcycled shoes in their appropriate sizes.

The school would provide a station that allows students to bring in old shoes and clean, restore and design them, creating a fresh new look. They can then choose to keep the shoes they created or trade them for a shoe that may be in stock from another student allowing them to find a shoe in their size if needed.

How We Will Measure Our Success

We will measure success by the number of students who use the space and by asking for student feedback.

Who are Decision Makers We Need to Reach

Administrators, thrift stores, people who know how to refurbish shoes and students in need of shoes.



Our 3-5 Step Plan for Change

Our plan for change is to:

1. Gather supplies needed to clean, repair and design shoes, (such as paint, laces, shoe cleaner ect.)
2. Spread the word that the shoe upcycling space is available to students.
3. Have tutorials available or mentors to help during the first month.
4. Have students provide feedback.
5. Make improvements based on student feedback.

Impact & Equity

The shoe upcycling station will allow students to feel more confident in their appearance, have access to shoes that fit and are functional and allow parents to save money on shoes for their students. Recycling the shoes will help stop pollution and allow for a cleaner environment.

What Help We Need to Be Successful

We need access to supplies to upcycle the shoes. We need volunteers to help teach students how to clean and refurbish shoes. We need students to participate.

