

Team Name & School: ECHO, Alief Middle School

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Green Heart Action Plan

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Problem Definition/ Problem Statement

Our school's garden is facing a significant challenge. Nestled within a horseshoe-shaped building, it has become a hotspot for litter accumulation. The dedicated ECHO club students regularly find themselves removing trash from this area. This isn't just a problem for our vegetable garden; it affects the entire community. During heavy rains, litter can wash into drains, leading to potential flooding and eventually reaching waterways—and the ocean. This pollution threatens ecosystems and public safety.

Root Cause of the Problem

The garden's strategic location that naturally collects litter from the environment.

List at Least Three Credible Resources that Support Your Problem Statement

Environmental studies and local waste management reports highlight litter's impact on flooding and ecosystem health:

The U.S. Environmental Protection Agency's page on aquatic trash explains how rain carries littered garbage into storm drains and stormwater systems, which can lead directly to waterways. Ocean & Coastal Management Journal discusses how extreme rainfall events flush plastic litter and debris from urban areas into oceans via stormwater discharge, with seasonal increases during rainier periods contributing to marine pollution.

The Lake, Geagua, and Ashtabula Soil & Water Conservation Districts' litter prevention resource highlights how street litter blocks storm drains, leading to flooding during heavy rains, and ultimately contributes to pollution in downstream waterways.



Proposed Solution

Educate our school community on reducing litter. We'll post recycling, reusing, and repurposing posters throughout the school to raise awareness. We'll demonstrate how not all litter needs to be thrown away by showcasing creative repurposing.

How We Will Measure Our Success

We'll measure success by reducing garden litter, preventing flooding after rains, and increasing clean-up event participation.

Who are Decision Makers We Need to Reach

We need support from school administration, local government, and community organizations.

Our 3-5 Step Plan for Change

We'll schedule our first school clean-up event, participate in the local Trash Bash event, and Adopt A Beach clean-up at Galveston, Texas.

Impact & Equity

Our initiative will create a cleaner, safer environment and promote equity by involving diverse community groups.



What Help We Need to Be Successful

Funding for school bus transportation to event sites, committed adults for education and chaperoning, trash clean-up supplies, and a small budget for food/snacks and water.

