



YES! Project Guide

STEEL RECYCLING

Category: Waste Reduction	
Approximate Cost: Fundraiser	
Desired Results	
<i>Project Goal: Reduce waste, recycle materials and repurpose useful metal materials and produce a funding stream.</i>	
<p>UNDERSTANDINGS</p> <p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> • <i>The necessity of public perception for effective change.</i> • <i>Recycling metal products that have ended their useful life cycle can be an effective repurpose of vital resources.</i> 	<p>ESSENTIAL QUESTIONS</p> <ul style="list-style-type: none"> • Is steel production more cost effective using raw materials or recycled steel? • What happens to minerals as they breakdown in the environment? • Is it more effective to reuse aluminum or use raw materials? • How does cleaning up debris impact the environment? • How are recycled metals reprocessed into usable products? • How much raw material must be mined to create one pound of final product? • How much recycled product must be process to create one pound of final product?
<i>Knowledge and Skills Acquisition</i>	
<p><i>Students will know...</i></p> <ul style="list-style-type: none"> • <i>How to communicate in a professional manner.</i> • <i>The tools and equipment used in collecting and transporting materials.</i> 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> • <i>Presenting to community members and service organizations.</i> • <i>Identifying ferrous and non-ferrous metals for recycling.</i> • <i>Safely loading, tying down, and unloading bulky and heavy items for transportation.</i>

Data

Impact Evidence

Qualitative (observations and descriptive data):

Students develop positive relationships with industry and agriculture leaders. Sites are left clean and free of debris. Students display positive attitudes towards the changes they have made in their community.

Student survey of attitude and behavior change towards reducing waste and repurposing materials.
Donor list and evaluation.

Quantitative (numerical data):

Students should be able to calculate the total weights of materials recycled. The amount of raw materials represented by the collected items can be computed. The dollar amount of materials recycled can be calculated.

Numbers of donors and amounts donated.

Timeline

September/October: Form team. Promote through all school avenues available.

October: Attend YES! Fall Conference.

October-August:: Make connections with industry and agriculture sources to locate metal scrap. Begin collecting and delivering to recycling center.

November/December: Attend YES! Winter Conference. Share the project with YES! groups.

Process

Students locate possible clean up sites.

Students make contact with owner and explain the project.

Students and adults bring trailers and equipment to clean and load debris.

Dependent on current pricing, bring the materials to a recycling center or stockpile and a safe site until price increases.

Resources and Other Tips

<http://www.steel.org/sustainability/steel-recycling.aspx>

https://en.wikipedia.org/wiki/Ferrous_metal_recycling

Tips: Be sure to have adult helpers, especially when using heavy equipment for loading. Always tie-down materials properly.