

Separating Mixtures – Recycling Challenge

Grade 7 Matter and Energy

Student Handout

Step 1: Plan

Develop a plan that outlines a process for sorting the recycling. Consider what needs to be sorted first, the materials you'll use and what you will need to build. Including a drawing of your invention. This must be approved before continuing to the next step.



Step 2: Budget

Buy the materials necessary for sorting your recycling. The primary goal is to invent an efficient recycling system but the recycling facility is looking for a design that is both efficient and cost effective.

Table 1: Materials List			
Materials	Price	Amount Purchased	Cost
Elastic	\$0.10		
Skewer	\$0.25		
Popsicle Stick	\$0.20		
Magnet	\$3.00		
Tupperware container	\$6.00 (limit of 1)		
Таре	\$0.25 per cm		
Toothpick	\$0.10		
Pipe Cleaner	\$0.25		
Paper Plate	\$1.00		
Plastic Cup	\$1.00		
String	\$0.25 per cm		
Paper Clips	\$0.20		
Foam Board	\$4.00 per sheet		
Turkey Baster	\$3.50		
Plastic Cutlery	\$1.00 per set of 3		
	1	Total Cost:	



Step 3: Build

Build your recycling system; this step includes any trial runs and modifications.

Step 4: Test

Use your recycling system to sort the components.

Step 5: Pitch

Present a two-minute sales pitch as to why your recycling system should be used by the recycling facility.

Tips

- Summarize why they should buy from you
- Focus on client problems and present solutions
- Communicate results
- Make it easy and quick to understand
- Give examples that demonstrate your product's value