

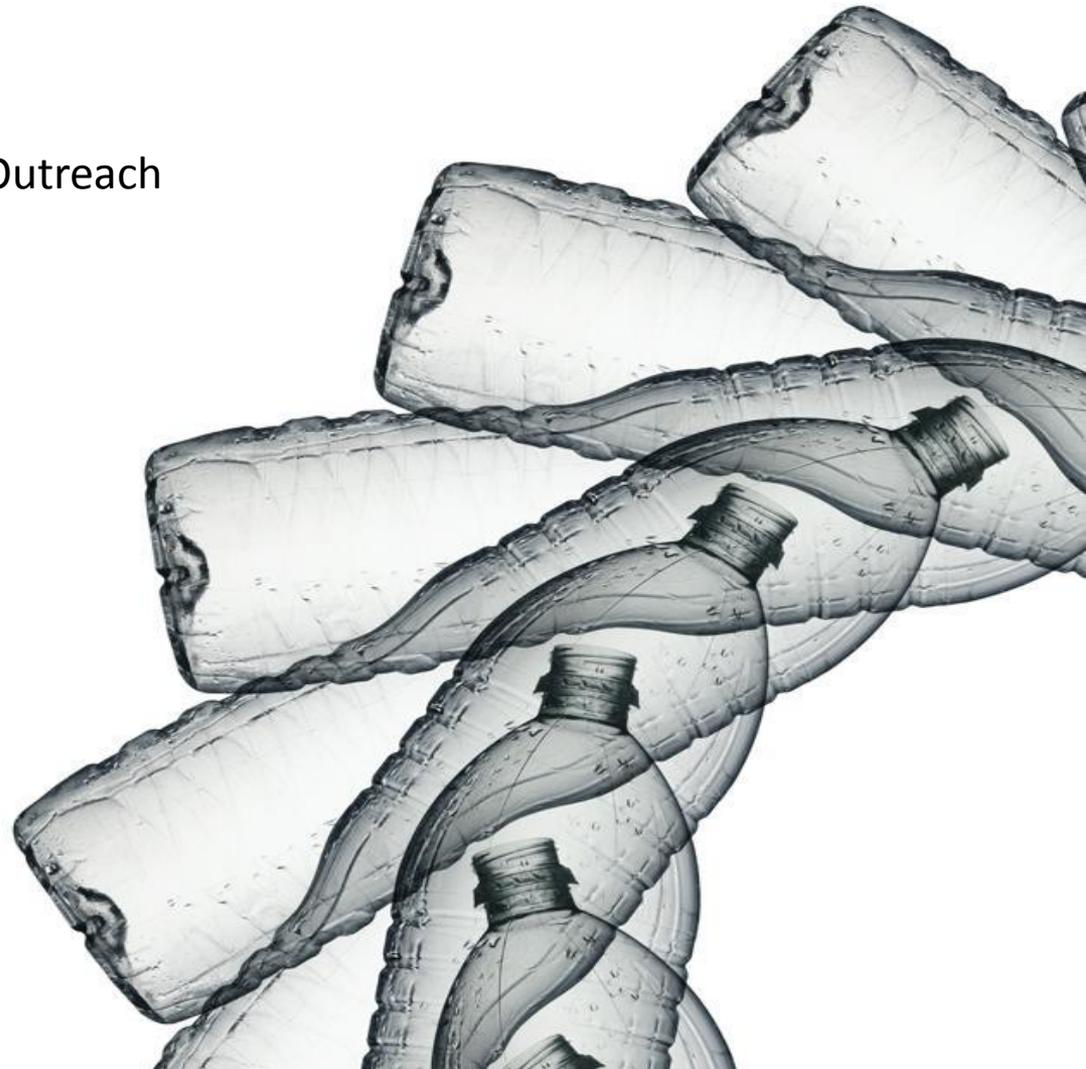
# PNW Public Education Strategies

## Navigation Tools for Residential Recycling

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# WM PNW Service Area

## Training Community Recycling Ambassadors

Washington

Oregon

Idaho

British  
Columbia

# Service Delivery Model

## Residential Customers

- Annual Mailings
- Bill Inserts
- Think Green Recycling Challenge
- Clean Cart Challenge
- Touch-a-Truck events
- Waste Watchers
- Classroom Workshops
- Recycling Center Tours
- Recycling Information Station



### Federal Way residents are rewarded for good recycling habits!

This summer Waste Management's Clean Cart Challenge Prize Patrol visited Federal Way to reward recyclers. The Prize Patrol hit the streets to see whether recycling carts contained acceptable recyclable materials. Both multi-family complexes and single-family homeowners were rewarded for good recycling habits. Winners were chosen at random and won either a \$5 coffee card or a gift card valued at \$50. More Prize Patrols are being planned to reward good recycling practices. In Federal Way, over 100 residents have already won. You could be next!



# What is Recyclable?

## Problem Statement

Recycling is an interconnected and complex system that was not created using a 'systems approach'.



# Recycling System Components

## Interconnected Disconnect

- MRF Equipment
- MRF Design
- Product Design
- Markets
- Volume and transportation
- Quality = Value
- Decision Makers
- Regulations (city, county, state, federal)
- Competitive Environment (muni and hauler)
- **Unpredictable, well-intended contributors (customers)**

# WM Customer Recycling Survey

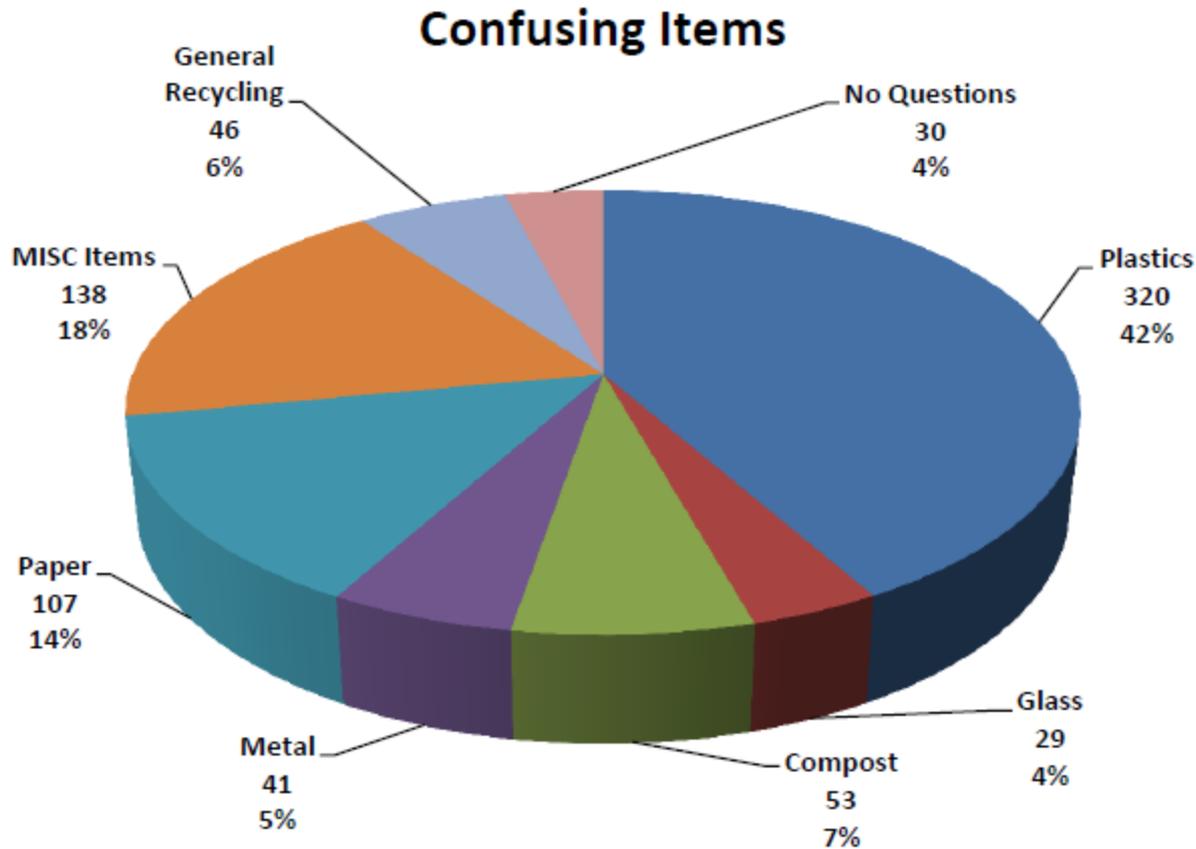
## Improving Recycling Education Tools

1. What are the most confusing items for you?
2. Who does the most recycling in your home? (*Eight sets of age ranges provided.*)
3. What would help you recycle more or make it easier to recycle?



# WM Customer Recycling Survey

## Improving Recycling Education Tools



# WM Customer Recycling Survey

## Improving Recycling Education Tools

PLASTICS | 42%

The largest number of questions concerned plastics:

- Plastics - General (320) ←
- Plastic Number/Recycling Symbol (74) ←
- Styrofoam (46)
- Plastic Bags (40)
- Food Take-out Containers (39)
- Clamshells (37)
- Milk Containers (20)



# WM Customer Recycling Survey

## Improving Recycling Education Tools

- Potato Chip Bags/Candy Wrappers (18)
- Yogurt Containers (11)
- Plastic Film (7)
- Capri Sun (5)
- Plastic Cups (5)
- Empty Oil Containers (3)
- Straws (3)
- Tires (3)
- Prescription Vials (2)
- Toys (1)
- CDs (1)
- Plant Pots (1)
- Plastic 5-gallon buckets (1)



# 2012 WM Curbside Recycling Behavior Study

## Curbside Feedback Loop





# 2012 WM Curbside Recycling Behavior Study

## Curbside Feedback Loop

### Contamination Trends

Non-program items, i.e. recycling contamination observed in this study encompassed six categories:

1. Non-program plastic
2. Non-program paper
3. Non-program metal
4. Non-program glass
5. Garbage
6. Organics (food and food soiled paper)

# 2012 WM Curbside Recycling Behavior Study

## Curbside Feedback Loop

Within these six categories, 41 specific non-program materials were recorded:

- loose plastic bags
- wrappers (candy/chip/snack)
- straws
- lids
- plastic hangers
- non-recyclable plastic packaging
- Tupperware
- bubble wrap
- Tyvek envelopes
- plastic-covered cardboard
- bagged newspaper
- batteries
- window glass
- bagged garbage
- mailing envelope with bubble wrap/insulation
- zip-top bag
- zip ties
- plastic plant pots
- blister pack
- film (Syran)
- foam meat trays
- foam packaging
- pet food bags
- cotton swabs
- bathroom garbage
- dryer sheets
- dryer lint
- vacuum dust
- hair
- plastic utensils
- mesh produce bags
- 6-pack rings
- paper towels
- food-soiled paper plates
- paper cups w/liquid
- loose shredded paper
- bagged shredded paper
- toys
- textiles
- cleaning wipes
- food

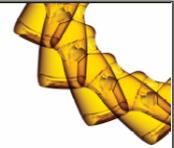
# Question Triggers

## Recycling Information Station

Recycling Information Station  
GAMES • CRAFTS • PRIZES



THINK GREEN.



# 2013 WM Residential Behavior Study

## Research Goals

- Identify current baseline recycling behaviors that allow for tracking change over time
- Identify the values, attitudes, and beliefs that relate to recycling and the value of recycling
- Identify barriers and effective motivations or incentives for desired behavior changes
- Identify the most effective communications tools to achieve the desired behavior changes

# Unique Study Design



- Garbage Cart Sorts (N=411)
- King County (N=138)
  - Snohomish County (N=273)



- In-Person Surveys (N=225)
- King County (N=76)
  - Snohomish County (N=149)

The first-of-its-kind study design resulted in a representative sample of WM customers who live in single-family homes within the WUTC areas in King and Snohomish Counties.

# Key Takeaways

## Attitudes

- People care
- Recycling was very important and not difficult to do (with exception of food scraps and food-soiled paper)
- Curbside recyclers believe they are doing a good job
- People are still unsure about composting

## Barriers to Recycling Recycle Bin Materials

- Still putting large amounts of common recyclables in the garbage (i.e. cans, cereal boxes, office paper, junk mail, etc.)
- Preparation and confusion about what can and cannot be recycled
- Don't understand recycling process
- Old recycling rules still in play

# When Garbage Attacks!

## Single-Use Saturation



# Plastic Bottles

2 million every 5 minutes



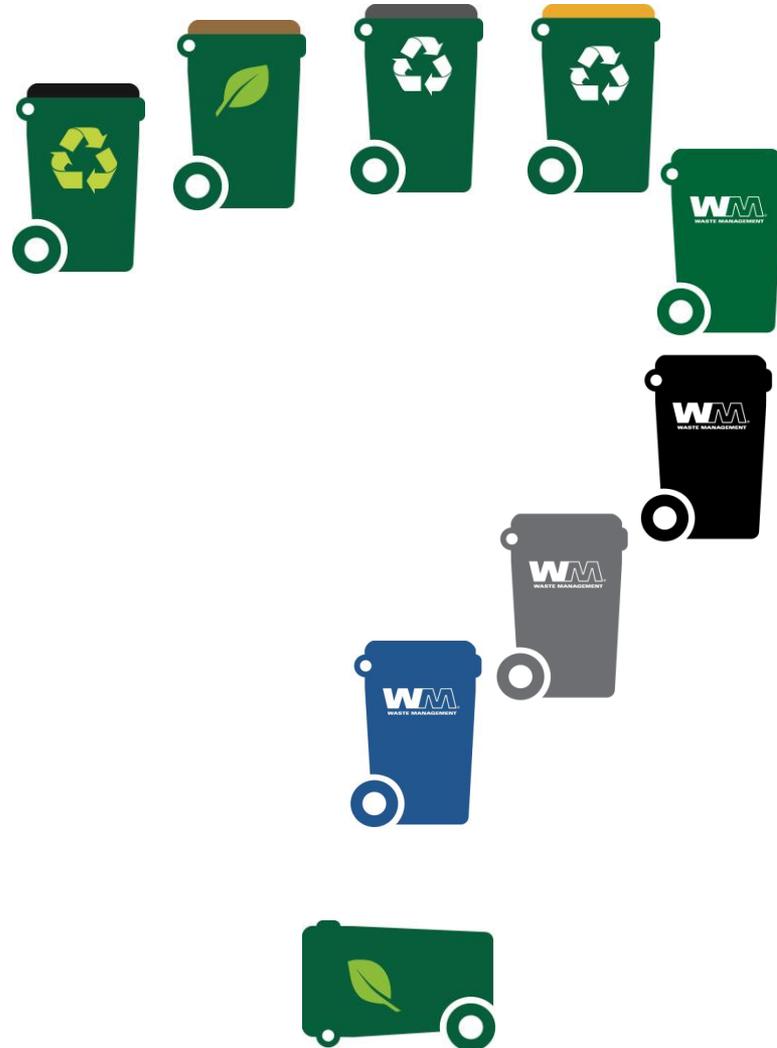
# Plastic Bags

60,000 every 5 seconds



# Recycling is Easy? It could be.

## Cart Colors



# Curbside Recycling Harmonization Project

## King and Snohomish Counties

PAPER	Cardboard	65
PAPER	Newspaper/Ads	65
PAPER	Phonebooks	65
PAPER	Magazines	65
PAPER	Paperback books	65
PAPER	Mail	65
PAPER	Window envelopes	65
PAPER	Office and printing paper	65
PAPER	Paper bags	65
PLASTIC	Bottles and jugs	65
GLASS	Bottles	65
GLASS	Jars	65
METAL	Aluminum cans	65
METAL	Tin cans	65
METAL	Steel cans	65
PAPER	Food boxes (polycosted dry and frozen)	64
PLASTIC	Tubs	64
PAPER	Non-foil wrapping paper	63
PAPER	Milk and juice cartons	63
PAPER	Aseptic cartons (milk, soy, soup, etc.)	63
PAPER	Juice boxes	63
METAL	Scrap metal	63
PAPER	Paper cups	55
PLASTIC	Cups	52
METAL	Small metal appliances	43
METAL	Aerosol cans (non-toxic)	39
METAL	Aluminum Foil	39
METAL	Aluminum trays	37

METAL	Lids (> 3' in diameter)	27
PLASTIC	Plant pots	26
PLASTIC	Lids (> 3' in diameter)	26
PAPER	Shredded paper (bagged)	25
PLASTIC	Trays (dell, bakery)	25
PLASTIC	Plastic bags (bagged)	25
PLASTIC	Clamshells	25
PLASTIC	Take-out containers	22
PLASTIC	Film, stretch wrap	19
MISC	Motor Oil (next to cart)	13
PLASTIC	5-gallon buckets	8
MISC	CFL Bulbs (on cart)	5
MISC	E-waste (next to cart)	4
MISC	Cooking Oil (next to cart)	3
MISC	Textiles (next to cart)	3
PLASTIC	Rigid plastic	2
PLASTIC	PVC pipe	2
MISC	Batteries (on top of cart)	2
MISC	Styrofoam (next to cart)	2
MISC	CD Cases	2
MISC	Empty Latex Paint Cans	2
PAPER	Take-out boxes	1
PLASTIC	Garbage cans	1
MISC	Camping Propane Canisters (on top of cart)	1
MISC	Clean Wood (bundled next to cart)	1
METAL	Lids (> 3' in diameter)	0



# MRF Madness

Confusion = Contamination





OUR FUTURE  
MAXIMIZING  
VALUE  
FROM WASTE

# Harmonization Project

## King and Snohomish Counties

YOUR SNOHOMISH COUNTY  
Residential  
Recycling Guide

Waste Management is pleased to provide these guidelines to help make it easier to use our services.

**Please save and post for easy reference.**

[www.wmnorthwest.com/snohomishcounty](http://www.wmnorthwest.com/snohomishcounty)



# Why Harmonize?

## Win-Win-Win

- Customer Service
- Efficient Operations
- Highest and best use of collected recyclables
- Customer Confidence



# RECYCLING MYTH BUSTERS

**MYTH: All plastics can be recycled.**

**FACT:** Not all plastics can be successfully recycled. At this time only some plastics can be made into new things. **Recycle plastics by shape - bottles, jugs, dairy tubs and cups.**



**MYTH: A recycling symbol stamped on plastic means it is recyclable.**

**FACT:**

- There are **thousands** of plastic products and packaging, and each one has its own unique chemical recipe.
- The number only tells us what the primary ingredient is in the plastic recipe. Many plastics cannot be made into new products at this time.



**MYTH: It doesn't matter if something belongs in the recycling — the recycling center will sort everything anyway.**

**FACT:** False.

- There is a lot of garbage sent to the recycling center, and each non-recyclable item is removed by hand by trained staff.
- Garbage placed in the recycling increases the cost of the recycling process and will increase the cost of garbage and recycling service.

**Garbage and Other Things We Find in the in Recycling**

- loose plastic bags
- hoses
- light bulbs
- needles
- toys
- hangers
- straws
- snack wrappers
- cleaning wipes
- food-soiled containers and paper
- non-recyclable plastic

**We're here to help!**

When in doubt, check your Recycling Guide, call the Waste Management Customer Service Center or email recycling experts at [recyclenw@wm.com](mailto:recyclenw@wm.com).

# Recycle Often. Recycle Right. Tools

## WM Open Source Resources



- Poster
- Bill Insert – Adult Audience
- Bill Insert – Kids Activities
- Myth Busters
- Cart/Container Decals
- Recycled Art Activity flyer

# Recycle Often. Recycle Right. Tools

## WM Open Source Resources

**RECYCLING RULES**

1. RECYCLE ALL BOTTLES, CANS AND PAPER
2. KEEP ITEMS CLEAN AND DRY
3. NO PLASTIC BAGS

**Always recycle:**



**Plastic Bottles & Containers**

Plastic bottles, jars, jugs and tubs



**Food & Beverage Cans**

Tin, aluminum, steel food and beverage cans



**Paper**

Cardboard, paper, newspaper, paperboard, magazines



**Flattened Cardboard & Paperboard**

Flatten all boxes (do not bundle/tie up)

**Do NOT include in your mixed recycling cart:**



**NO Food Waste**

(Compost instead!)



**NO Plastic Bags & Film**

(Find a recycling site at [plasticfilmrecycling.org](http://plasticfilmrecycling.org))



**NO Foam Cups & Containers**

(Check [Earth911.org](http://Earth911.org) for options.)



**NO Needles**

(Keep medical waste out of recycling. Place in safe disposal containers like Waste Management's MedWaste Tracker\* box.)

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# Recycle Often. Recycle Right. Tools

## WM Open Source Resources



**RECYCLE OFTEN.  
RECYCLE RIGHT.™**

### WHY recycle?



**Plastic bottles**  
can turn into clothing



**Aluminum cans**  
can turn into new ones in 60 days



**Today's news**  
can become a new cereal box

### How to recycle:



Recycle all bottles, cans  
and paper



Keep items clean and dry



No plastic bags

# Recycle Often. Recycle Right. Tools

## WM Open Source Resources

### MYTH: Most Americans recycle all they can

#### ANSWER: False

Research shows convenience and commitment are required for maximum recycling. For instance, is there more than one location in a household to store recyclables? If not, recyclables in areas other than the kitchen get thrown away.

Additionally, is there only one committed recycler in a household (usually the person who picks up after everyone)? If so, studies indicate making this a family/partner affair where everyone participates, allows the most recycling of the right materials.



### MYTH: The recycling arrows (Mobius) on a container means it is recyclable at a Material Recovery Facility (MRF)

#### ANSWER: Only in some cases

Manufacturers strive to get eco-friendly information on their product labels. It sells. The FTC requires that a product have at least 60% access to local programs (like Material Recovery Facility processing) across the U.S. to include the Mobius on their products. However, the Mobius is not

a reliable indicator of whether something gets recycled. There are thousands of plastic products and packaging, and each one has its own unique chemical recipe. Many plastics cannot be made into new products at this time. Recycle plastics by shape: bottles, jars, jugs and tabs.



### MYTH: It doesn't matter if something belongs in the recycling cart, the hauler will sort everything anyway

#### ANSWER: False

There are increasing amounts of non-recyclables sent to Material Recovery Facilities, and every single one of them must be removed by hand by trained staff and/or mechanically sorted, or they end up contaminating high value recyclables. Non-recyclable garbage placed into recycling containers increases the cost of the recycling process and will increase the cost of garbage and recycling collection service.

Similarly, recyclable items placed into garbage containers are usually hauled to a landfill. Recyclables in a landfill cannot be recovered effectively. Even if further processing takes place, the full value is lost. The right thing to do is to put the all the right recyclables in the recycling container and non-recyclables into the garbage containers. Recyclables with the greatest impact are bottles, cans, and paper.



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# Recycle Often. Recycle Right. Tools

## WM Open Source Resources

### Plastic FAQs.

Are these items recyclable in my curbside mixed recycling program?



ITEM	ANSWER	MORE INFO
<p>Plastic bottle caps/lids</p>	<p>Yes. After bottles are empty, plastic caps should be placed back on bottles.</p>	<p>"Until recently the plastics recycling industry was not able to effectively recycle bottles with caps on so the message to remove the cap was created. But recycling collection and processing technology have improved and demand for the recyclable material has increased and this allows for the updated caps-on recycling message and process." Association of Post Consumer Plastic Recyclers: <a href="http://www.plasticsrecycling.org/faqs/caps-on-faqs">http://www.plasticsrecycling.org/faqs/caps-on-faqs</a></p>
<p>Plastic bags</p>	<p>No. Do not put loose plastic bags or bagged recyclables into cart – empty recyclables into cart.</p>	<p>Plastic bags are not accepted in most curbside recycling programs (they get tangled in the MRF equipment, breaking or stopping machinery.) (See <a href="#">KAB Sept 15, 2014 campaign</a>). Empty plastic bags should go back to a participating retail outlet or grocery store for recycling. For more information, visit: <a href="http://recycleyourplastics.org/Main/Plastic-bags-film.html">http://recycleyourplastics.org/Main/Plastic-bags-film.html</a> OR <a href="http://www.plasticfilmrecycling.org/s01/s01dropoff.html">http://www.plasticfilmrecycling.org/s01/s01dropoff.html</a></p>
<p>Plastic film</p>	<p>No</p>	<p>Plastic stretch wrap, bubble wrap, and other plastic films get tangled in the MRF equipment, breaking or stopping machinery (See <a href="#">KAB Sept 15, 2014 campaign</a>). There are also different types of plastic film that are not compatible with each other and hard to tell apart for Material Recovery Facility workers, and even harder to sell if mixed together. Plastic film should go back to a participating retail outlet or grocery store for recycling. For more information, visit: <a href="http://recycleyourplastics.org/Main/Plastic-bags-film.html">http://recycleyourplastics.org/Main/Plastic-bags-film.html</a> OR <a href="http://www.plasticfilmrecycling.org/s01/s01dropoff.html">http://www.plasticfilmrecycling.org/s01/s01dropoff.html</a></p>



# Recycle Often. Recycle Right. Tools

## WM Open Source Resources



### Recycled Art Projects

Have fun with your classroom creating reusable art while teaching students about waste reduction. Incorporate these art projects into seasonal activities or integrate them with curriculum units.

#### Why make recycled art? Because...

- More than half of what is at the landfill is recyclable or reusable.
- Reusing is a simple way to save natural resources before recycling.
- The more use we get out of a piece of paper, a plastic container, a milk carton, the less we need to buy.



Contents	
Cereal Box Folder	2
Napkin Ring Holder	3
Milk Carton Pen Pot	4
PatchWork Geometry	5
Twig Journal	6
Envelopes	7
Envelope Template	8
Party Place Mats	9
Milk Carton Planters	10
Earth Day Grocery Bags	11
Egg Carton Bugs	12
Picture Frames	13



THINK GREEN!

# Mission: Harmonization

Our Stuff = Natural Resources

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[cvc@wm.com](mailto:cvc@wm.com)

<http://recycleoftenrecycleright.com>

