

commit to going

# Zero Waste



“THERE IS NO SUCH THING AS

**'away'**

**WHEN WE THROW ANYTHING  
AWAY IT MUST GO SOMEWHERE”**

**-ANNIE LEONARD**



# Overview

understanding  
waste

the 6 Rs

zero waste



# UNDERSTANDING WASTE

- 01** the waste cycle
- 02** waste auditing

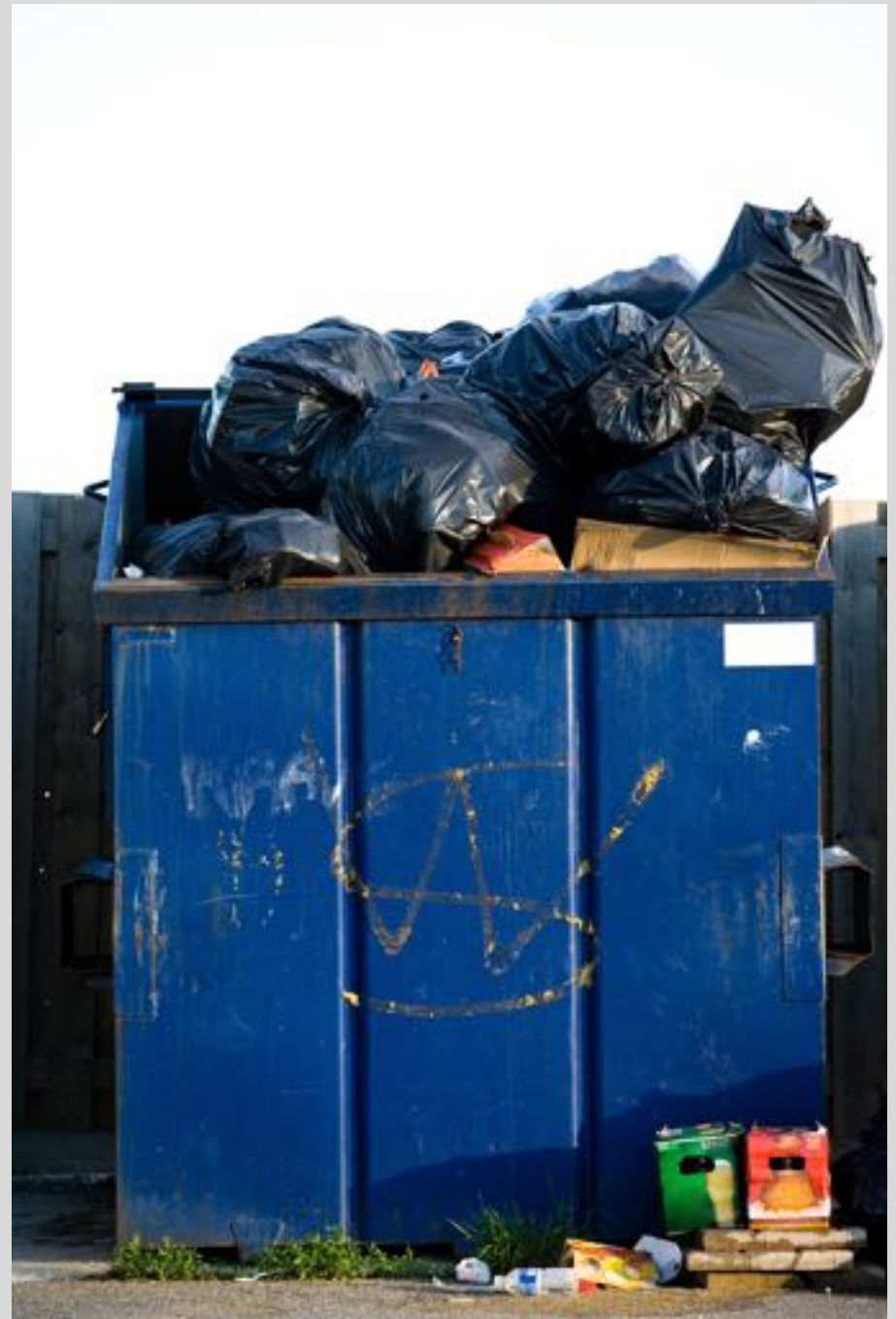
**01**

**understanding  
waste**

global waste is  
forecasted to  
increase by

**70%**

by year 2050





# WASTE LIFECYCLE

the object being discarded is not the only thing that goes to waste, it includes all the energy and resources required to manufacture and distribute the product AND replace it.





# Extraction

Raw materials are extracted from Earth's natural resources.

This is often invasive and destructive to the natural systems of the area



# Manufacturing

Raw materials are transformed into finished goods via special processes.



# Distributing

**Finished goods are distributed to retail shops and consumers via different modes of transport.**



# Usage

Finished goods are utilized for intended purpose.

This is the focus step of waste management.

Finding the best ways to prolong this stage for its maximum life.





# End-of-life

Waste is collected, disposed or treated using different waste management approaches.





# 02

## waste auditing

# How are you wasting



## Team

- **nominate or volunteer employees that represent all independent departments**
- **educate employees**

## Research

- **conduct relevant background information on waste generating activities and appliances**
- **research waste options in your community**

# Measuring

- **collect and sort the trash around your facility**
- **record what type of waste your producing and the weight of each type**
- **take note of how each was disposed and if they could have been disposed of differently**



# analyzing information

## CREATE GOALS AND SOLUTIONS

- decide the improvements you want to make
- make specific programs or actions that will help you achieve your goals

## EVALUATE

- find a reoccurring time to evaluate the goals that you have made
- identify if you need to revise goals, solutions, or execution





roughly

80%

of the items  
buried in  
landfills could  
be recycled.

# THE 6 R'S



# THE 6 RS

- 01** refuse
- 02** reduce
- 03** reuse
- 04** repurpose
- 05** recycle
- 06** rot



**01** refuse



# refuse

*verb.*

**to show  
nonacceptance  
towards  
something**



**want not**



**waste not**

# refuse



keep it simple. say no to things that are not truly necessary



you have power as a consumer, reduce demand, and purchase the appropriate amounts. support products that are sustainable



avoid purchasing things that are harmful to your company or environment



02

**reduce**



# reduce

***verb.*** to make smaller or lesser amount



You can not waste what you do not have.

# reduce



maximize the life and use  
of the things you do have  
before looking to  
consume more



be efficient. always ask,  
"Could the job be done  
with less?"



know your options. be  
creative. there is more  
than one way to solve  
waste problems

03

**reuse**

# reuse

***verb.***      **to use repeatedly**



get rid of single use  
items, purchase those  
with a longer life span to  
reap benefits for years

# 1,000,000

**plastic bottles**

**are consumed**

**by humans**

**PER MINUTE**



# what is worse?



recycling or  
throwing away  
an item to waste

or



using water  
resources to wash  
reusable items



# a convenience comparison

## WASTING

1. waste collection and transportation to recycling facility or dump
2. if dump, extraction of natural resources
3. transportation of natural resources or recycled material to processing
4. byproduct waste of processing
5. transportation of final product to retail

## WASHING

1. extraction of water resources  
opportunity for
2. repurpose of water

04

**repurpose**

# repurpose

***verb.*** to use one item in multiple ways



**repurposing is a great opportunity to bring your creative side out and see objects with an open mind**

# think



landscaping



decoration

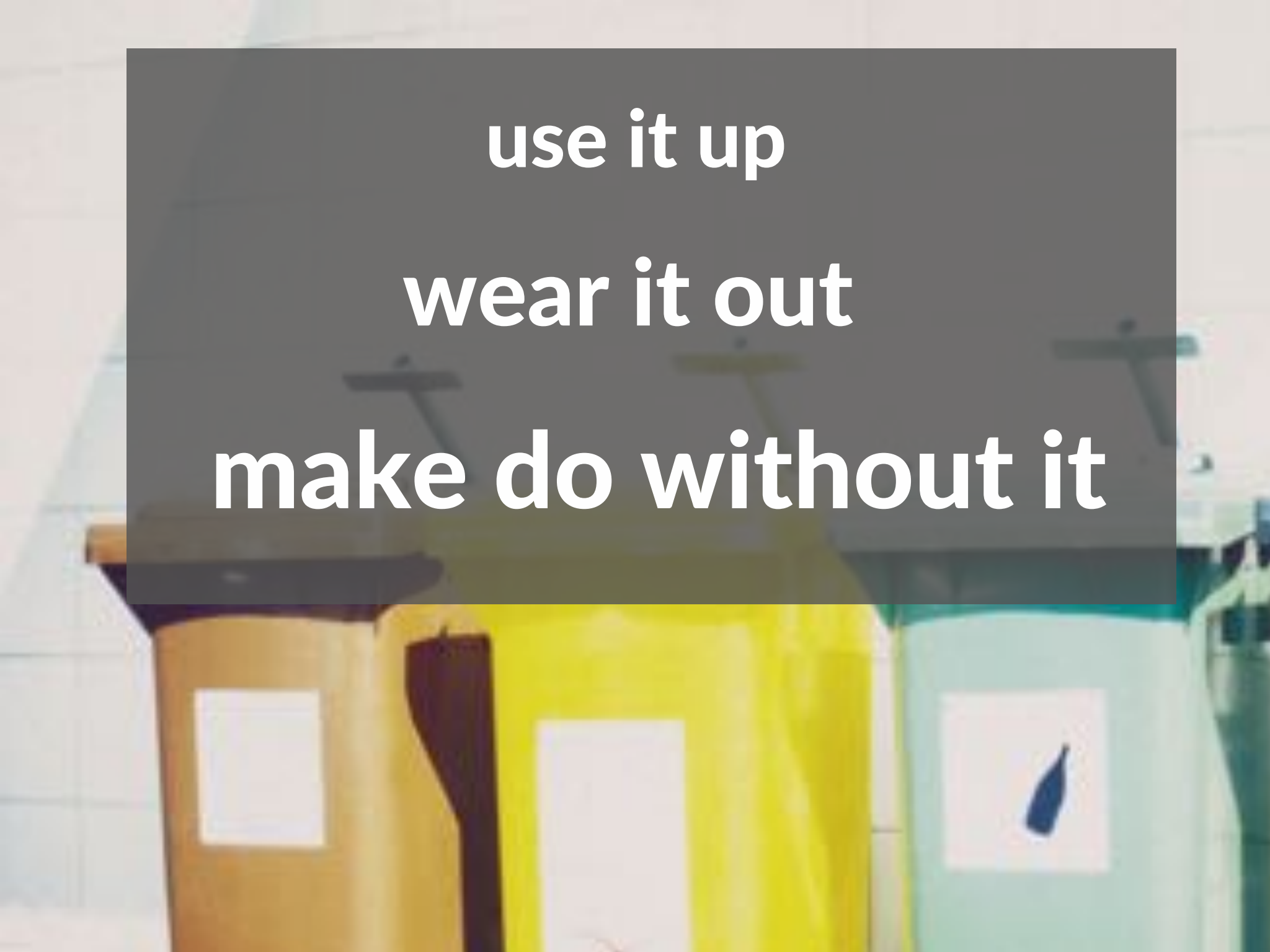


practicality

**use it up**

**wear it out**

**make do without it**





05

recycle

# recycle

***verb.*** breaking waste into pure materials to be used again

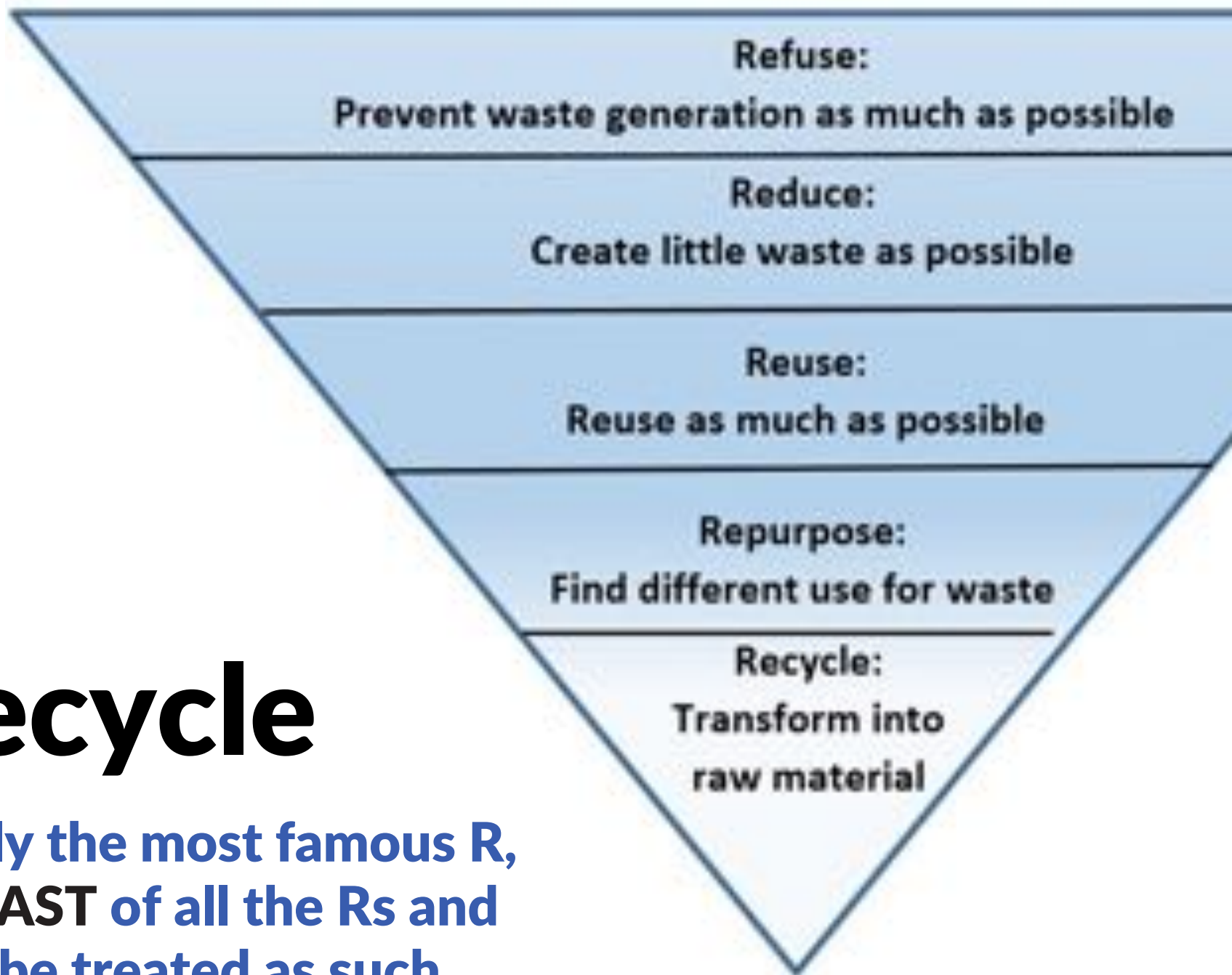


recycling has a

**37%**

success rate because  
it is not done enough  
and often done  
incorrectly!





# recycle

arguably the most famous R,  
is the **LAST** of all the Rs and  
should be treated as such.

# **recycling** **benefits**

## **INCREASE**

- **money saved**
- **energy saved**
- **sources of employment**
- **environmental health**

## **DECREASE**

- **rate at which natural resources are extracted**
- **amount of waste sent to landfill**
- **greenhouse gas emissions and pollution**



# CONTAMINATION

Can I just send my trash to the recycling plant and allow them to sort through it?

**NO**

## Common Contaminants

- Plastic bags - huge amount of extra removal work
- Food waste - especially food holding containers including plastic ones!
- Shredded paper - ruins recyclable long fibers of unshredded paper
- Brightly colored paper - like a red sock in white laundry

# WHY?

**Throwing trash in with your recyclable greatly increases the risk of contamination.**

**It is important when recycling materials that they are pure.**



**For example pizza boxes, often covered in oils, can not be recycled because the oils are too difficult to separate from the cardboard to be recycled.**



06

**rot**

(composting)



# rot

***verb.***

The natural recycling of organic waste into nutrient dense soil that can be used in gardens or landscaping for fertilizer.





# 1/3 or 1.3 billion



tons of food production worldwide  
**IS LOST OR WASTED**  
before consumption.

# composting benefits



besides initial equipment costs and very minimal labor, composting is free and can save you thousands on disposal costs and fertilizer!



landfill decomposition is anaerobic and produces half  $\text{CH}_4$  (methane) which has a heat holding capacity 25x that of  $\text{CO}_2$  produced in aerobic composting

# case study

Vermont's Middlebury college composted 90% of their overall food waste. By reducing their disposal costs by 370 tons of food, they were able to save near \$100,000.



# what to compost

## YARD SCRAPS

- Grass clippings
- Leaves/Twigs
- Chipped brush
- Any vegetation
- Any flowering plants

## FOOD SCRAPS

- Vegetable scraps
- Fruit scraps
- Roots
- Coffee grounds
- Egg shells

## PAPER

- Black and white news paper
- Printer paper
- Cardboard

## OTHER (dif. process)

- Meat
- Fat
- Dairy
- Non-vegetarian animal waste

# how

## HOT COMPOSTING

- 3 weeks -3 months
- Good for large amounts
- \$0-30 USD
- Mild maintenance

## COLD COMPOSTING

- 9-24 months
- Large and small amounts
- \$0-30 USD
- No maintenance

## VERMICOMPOSTING

- Worm composting
- 1-3 months
- Small, indoor spaces
- \$15-80 USD
- Mild maintenance

## BOKASHI

- Aerobic composting
- 10-24 days
- Good for small areas
- \$10-75 USD+
- Mild maintenance



# Zero Waste





# Zero Waste

**01** understanding zero waste

**02** purchasing



**01**

**zero waste**

what is

# **ZERO WASTE?**



it is utilizing the 6 Rs to prevent any materials from going to the landfill.

one man's

**TRASH**

is another  
man's

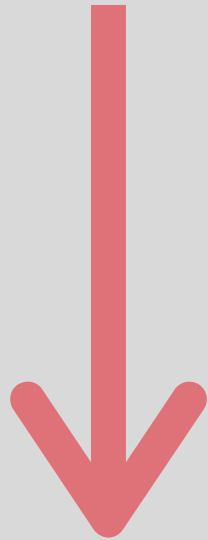
**TREASURE**



# linear vs. circular

**current economy**

take resources  
from earth



dump into  
ground

**needed economy**

take resources  
from earth



resource recovery  
infrastructure



02

**purchasing**



# **purchasing**

## **prioritize**

- recycled
- sustainable
- renewable
- non-toxic

**products**



**my waste,**



**my responsibility.**

*Thank You*

FOR BEING A PIONEER OF  
CHANGE AND CREATING A  
WORLD THAT IS KIND TO ITS  
PEOPLE AND ITS HOME

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