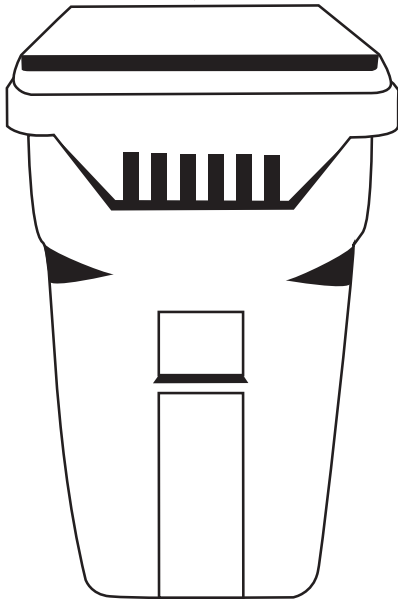


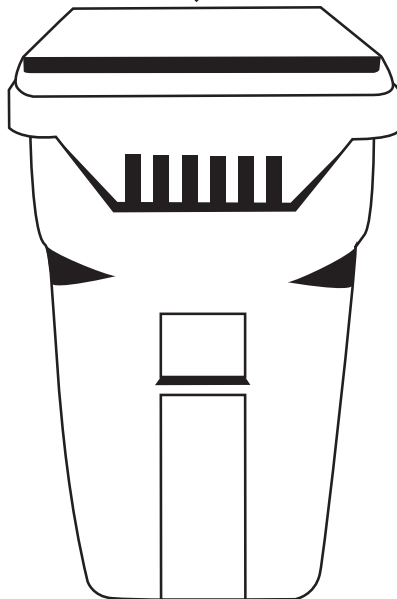


Be a Super Sorter!

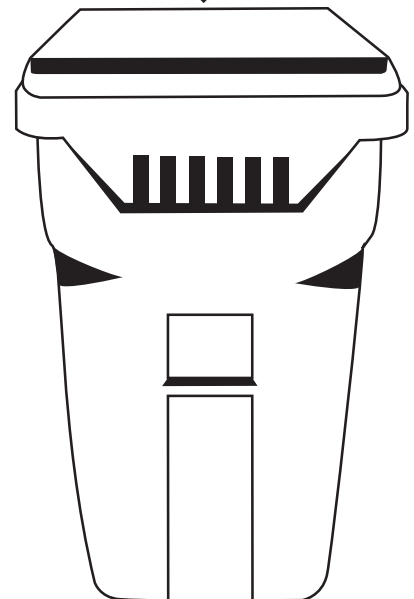
GARBAGE/LANDFILL



RECYCLABLES



ORGANICS



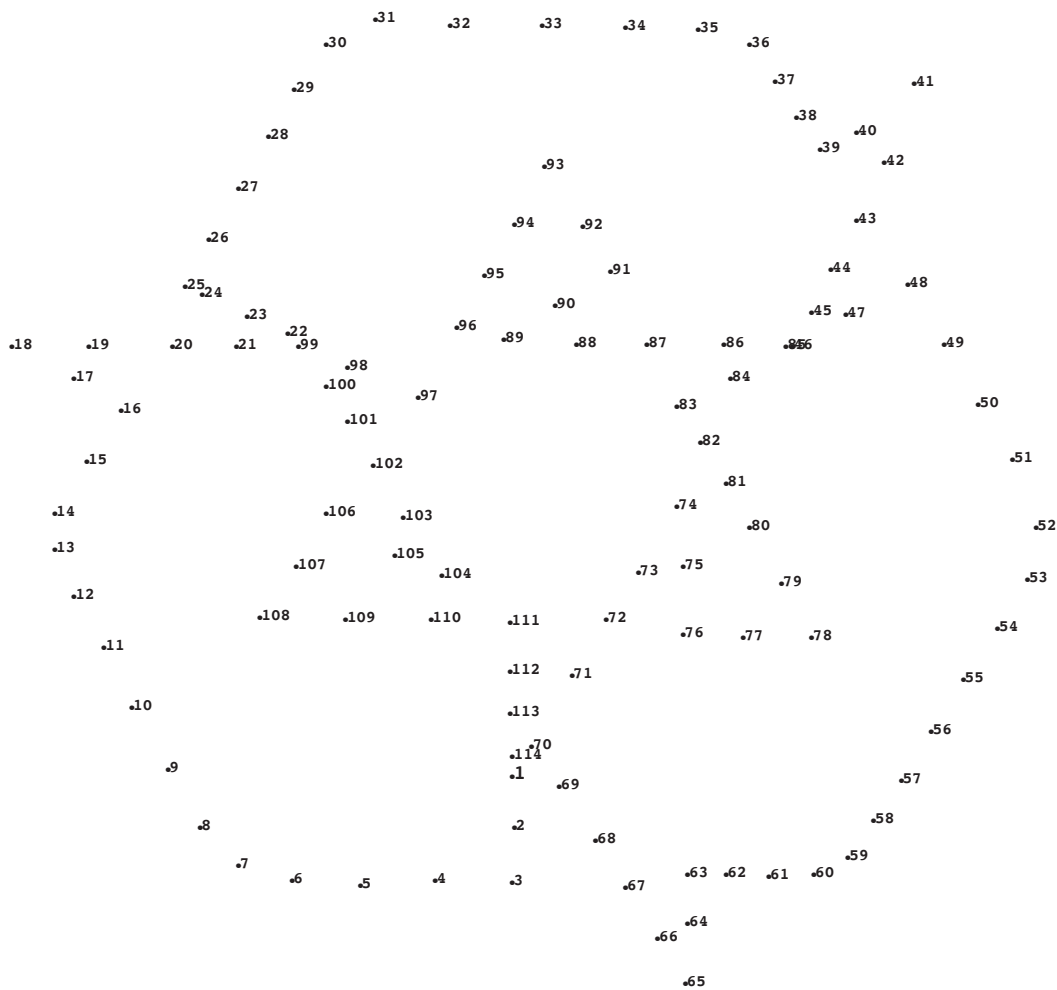
Color the carts the correct colors!

GRAY = Garbage/Landfill

BLUE = Recyclables

GREEN = Organics

Remember the 5Rs:



Reduce...*the amount of things you need. Repair or borrow items instead of buying new ones!*

Reuse...*everyday items. Carry a reusable water bottle with you!*

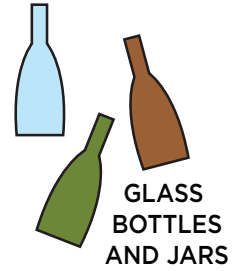
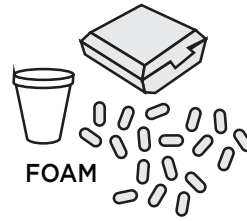
Refuse...*Only use the items you need. Avoid single-serve and single-use items like straws, napkins, plastic utensils and bottled water!*

Rot (Compost)...*Use the green organics bin. Fill it with compostable yard trimmings, food scraps and food-soiled paper!*

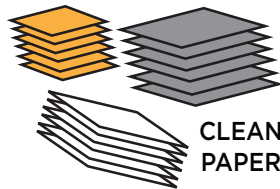
Recycle...*Paper, Metal, Glass and Plastic #1-#7. Keep it clean-properly sort to avoid contamination!*

Proper sorting makes a difference!

What belongs in each cart?



NON-RECYCLABLE
FOOD PACKAGING



Recycling Conserves Water!

Making paper from recycled fibers uses **49% less** water than making paper from **virgin fibers**.

Recycling one ton of **paper** saves **7,000** gallons of water.

Recycling one ton of **glass** requires **50% less** water (**12,000 gallons**) than making glass from raw materials.

Recycling **aluminum** creates **97% less** water **pollution** than making new **metal** from ore.

Recycling steel **saves 40%** of water used to make **steel** from ore.

It takes 3-gallons of water to produce 1-gallon of **bottled water**.

Word Scramble

Unscramble the letters to create terms used in the bullet list to the left. Use the letters in the circles to spell out what you can do by recycling.

____ _
EARPP

____ _
SLAGS

____ _ ____ _
LYCINRECG

____ _ ____ _ ____ _
IVRING BRIEFS

____ _ ____ _
SLAGOLN

____ _ ____ _ ____ _
MUMLINUA

____ _ ____ _ ____ _
LINTLOUPO

____ _ ____ _
ALMET

____ _
LESTE

____ _ ____ _ ____ _
DOTLBET EWTAR

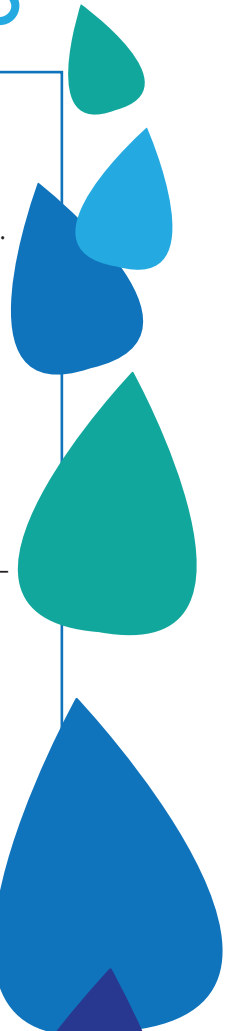
____ _

____ _

Sources:

- conservatree.org
- www.epa.gov
- www.deq.state.or.us
- www.cleanair.org
- www.coastal.ca.gov
- www.nemcog.org

LIST ONE THING YOU WILL DO TO SAVE WATER:



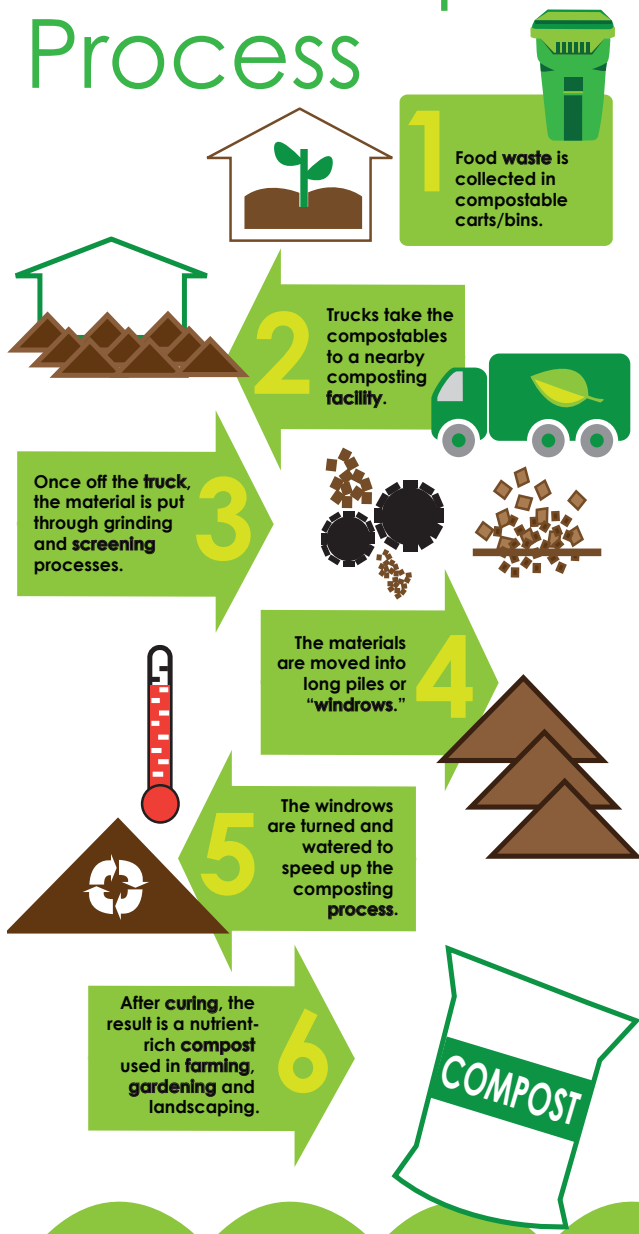
Single-use vs. Reusables

Avoid single-use items and use reusable items to reduce the amount of garbage you create.

Circle the items that help to reduce waste.



Fork to Farm: The Composting Process



Word Scramble

Unscramble the letters to create terms mentioned in the diagram to the left. Use the letters in the circles to spell out the process described in the diagram.

- _____ (O) _____
MOPSOTC
- (O) _____
CLIFTIAY
- _____ (O) _____
GRINCEENS
- _____ (O) _____
SWORDWIN
- _____ (O) _____
CRUKT
- _____ (O) _____
RUGNIC
- _____ (O) _____
RAMFIGN
- _____ (O) _____
EDIGNARNG
- _____ (O) _____
SCOPERS
- _____ (O) _____
SWEAT

(O) (O) (O) (O) (O) (O) (O) (O) (O) (O)

DID YOU KNOW?

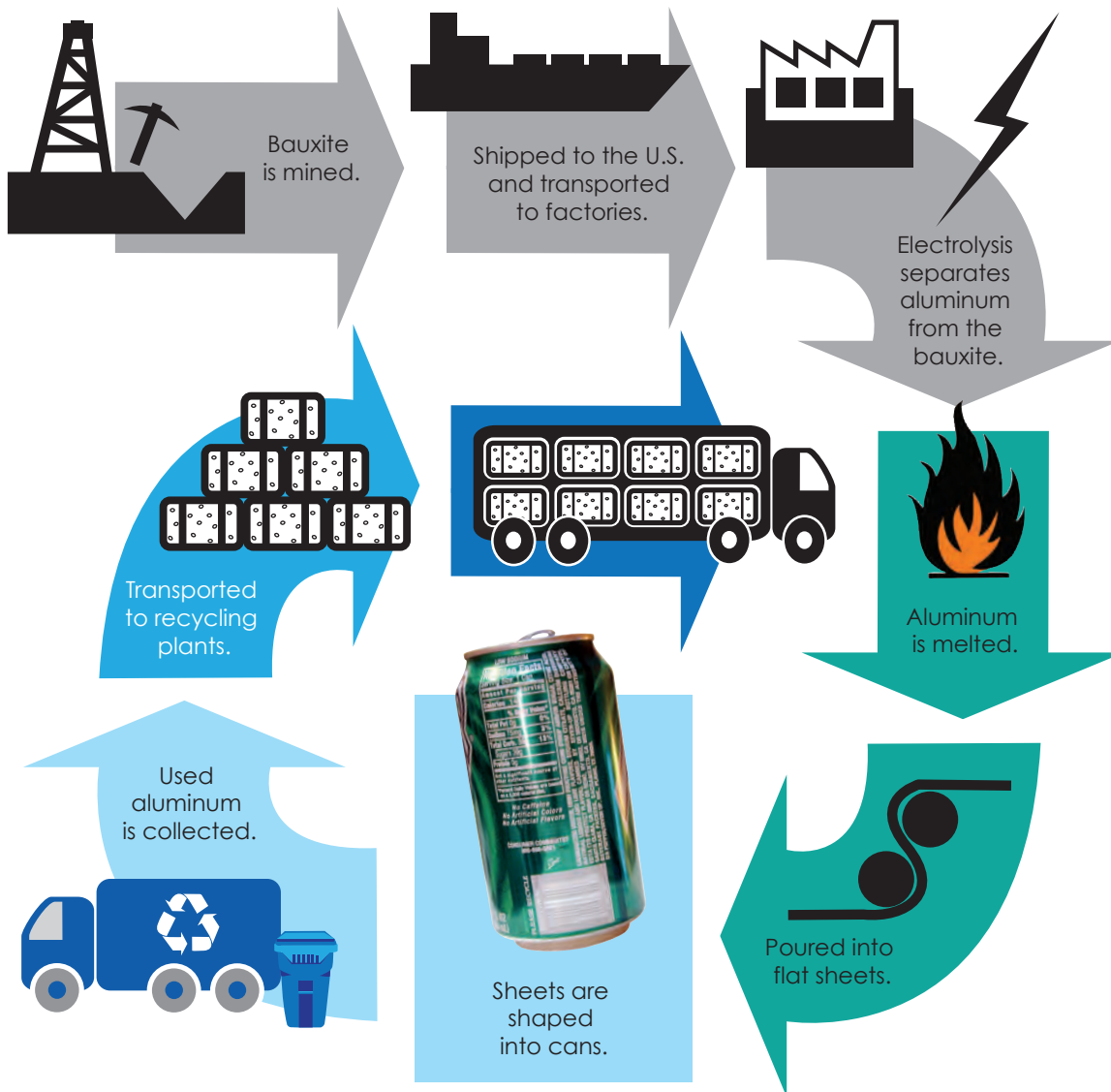
- 25% of the food Americans buy is thrown away.
- Retail value of preventable food waste = \$166 billion/year.
- 25% of U.S. fresh water goes to producing food we throw away.
- Americans pay \$1.3 billion a year to landfill food waste.
- Organic waste produces 135 million tons of greenhouse gases/year.
- 4% of total U.S. oil consumption is used for food production.

Source: Natural Resources Defense Council
http://www.nrdc.org/living/eatingwell/files/foodwaste_2pgr.pdf

LIST AN ITEM AT HOME OR SCHOOL THAT YOU CAN COMPOST:

MATERIAL LIFE CYCLES

Aluminum Manufacturing



WORD SEARCH

- ALUMINUM
- BAUXITE
- CANS
- ELECTROLYSIS
- FACTORIES
- MANUFACTURING
- MINE
- RECYCLE
- REDUCE
- REUSE
- SHEETS

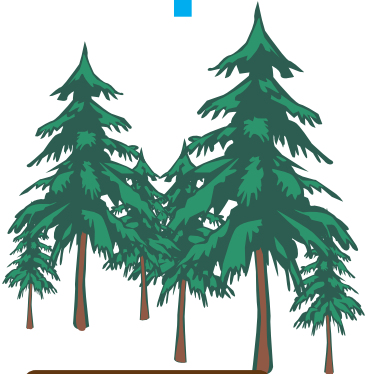
DID YOU KNOW?

- Recycling aluminum uses only 5% of the energy required to create aluminum from bauxite.
- Water pollution is reduced 97% when using recycled aluminum instead of bauxite.

S S V N S X P L F I M N M K N
 M E H H O U K J W P U A E K O
 H T I E S M C T R V N T R J W
 H E K R E T G X S U I H F L V
 B B R C O T N A F X M E X M F
 V O W I W T S A U P U U R T R
 M T F W H H C A D W L X M O E
 W J F L H T B A G I A T K U D
 E F B B U Q L A F S N A C I U
 N N Y R O Y M R E C Y C L E C
 D X I S I S Y L O R T C E L E
 I N A M N E R Y E J Y K U X I
 G P K J A I U U R Z F D B Y J
 D F J M O N S V K G L G N Y O
 U V T G P E Z S F F T R W Y P

MATERIAL LIFE CYCLES

Paper Manufacturing



Trees are harvested.
Logs are transported to paper mills.



People have three options after they are finished using paper products.



Paper products are manufactured and delivered to stores.

Material is transported to manufacturers to create new products.



LANDFILL
If paper is landfilled, the cycle is broken.

REUSE/ROT
Paper is composted or reused for packaging, arts & crafts, animal bedding, or other products.

RECYCLE
Paper products are collected. Recycling centers separate material.

WORD SEARCH

BALES
CRAFTS
ENERGY
LOGS
PAPER
PAPERMILLS
POLLUTION
RECYCLE
REDUCE
REUSE
ROT
TREES
COMPOST
WOODPULP

DID YOU KNOW?

When new products are made from recycled paper instead of virgin wood pulp:

- Energy use is reduced by 64%.
- Water use is reduced by 50%.
- Air pollution is reduced by 74%.
- 17 trees are saved.
- 5 times more jobs are created.

S C D S T H V P F Z S P C C W
Q L O I Q F L Z I N T T V R K
V X L M J U E T E O R W T A C
U G K I P S J N S I W K K F R
K K B D M O E W X T S O W T E
U R O I E R S E C U D E R S P
Y O U S G U E T D L J K L U A
W T U Y Y Z W P W L Q B D A P
R E C Y C L E Q A O X U P N B
R L S G T O H W H P H G U H B
Y A O U I F G L N C G T Y D M
C W S G Z K D Q E V U E Q W Z
Y F M J S Q F S G I F M P Q R
M U Q E P W L O T R E E S F C
U T E N U J U X H Y X D D D Q

What belongs in the Kitchen Pail?

All Food Scraps (Fresh, Frozen, Cooked and Moldy) and Food-Soiled Paper belong. Match the items on the left with the correct photo on the right.

•Leftover Food



•Peels, Pits & Rinds



•Fruits & Vegetables



•Dairy Products



•Bread, Rice & Pasta



•Coffee Grounds & Tea Leaves



•Meats & Bones

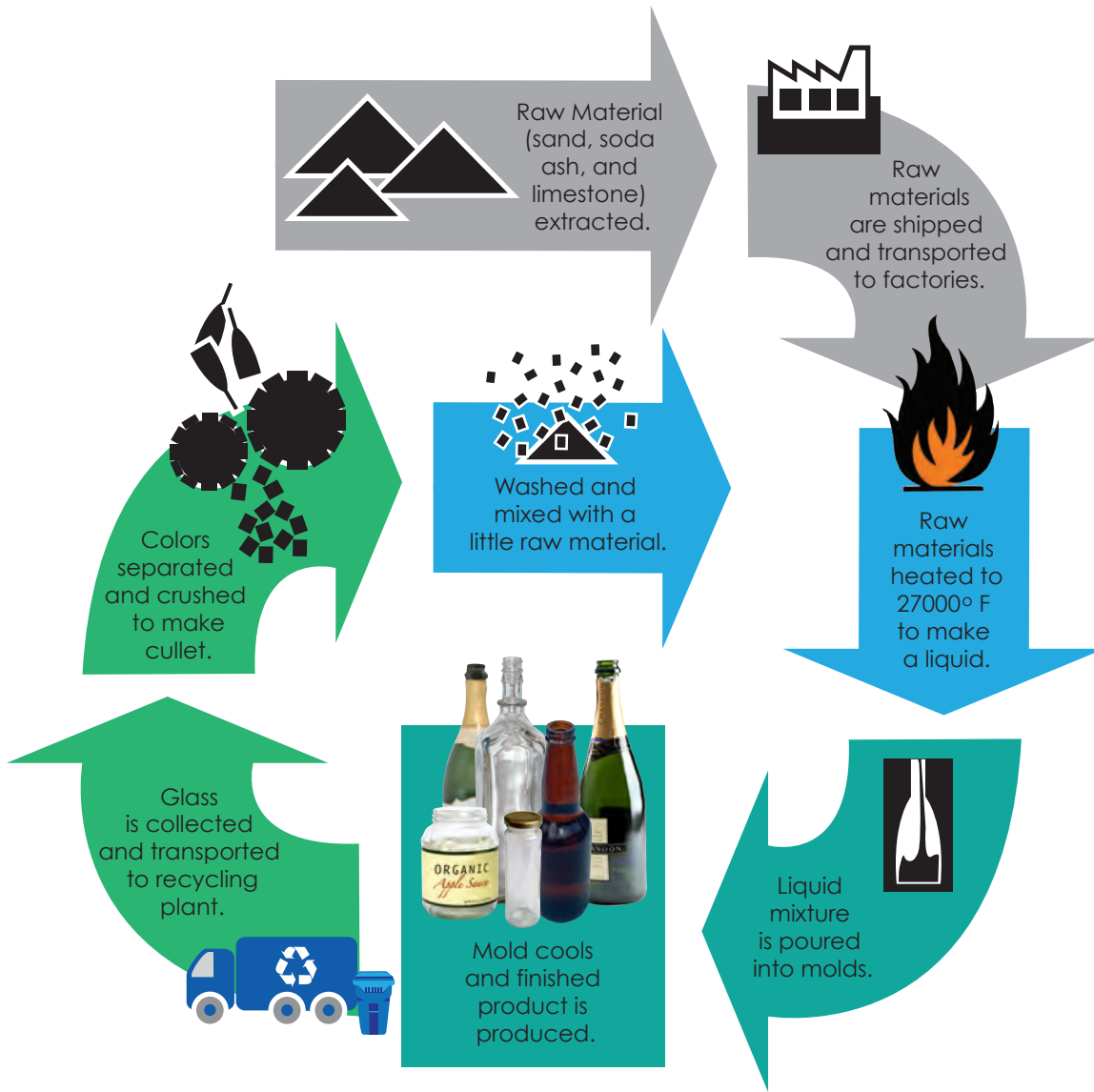


•Food-Soiled Paper



MATERIAL LIFE CYCLES

Glass Manufacturing



WORD SEARCH

- BOTTLES
- COLORS
- CULLET
- FACTORIES
- GLASS
- JARS
- LIMESTONE
- LIQUID
- MOLDS
- RECYCLE
- REDUCE
- REUSE
- SAND
- SODAASH

DID YOU KNOW?

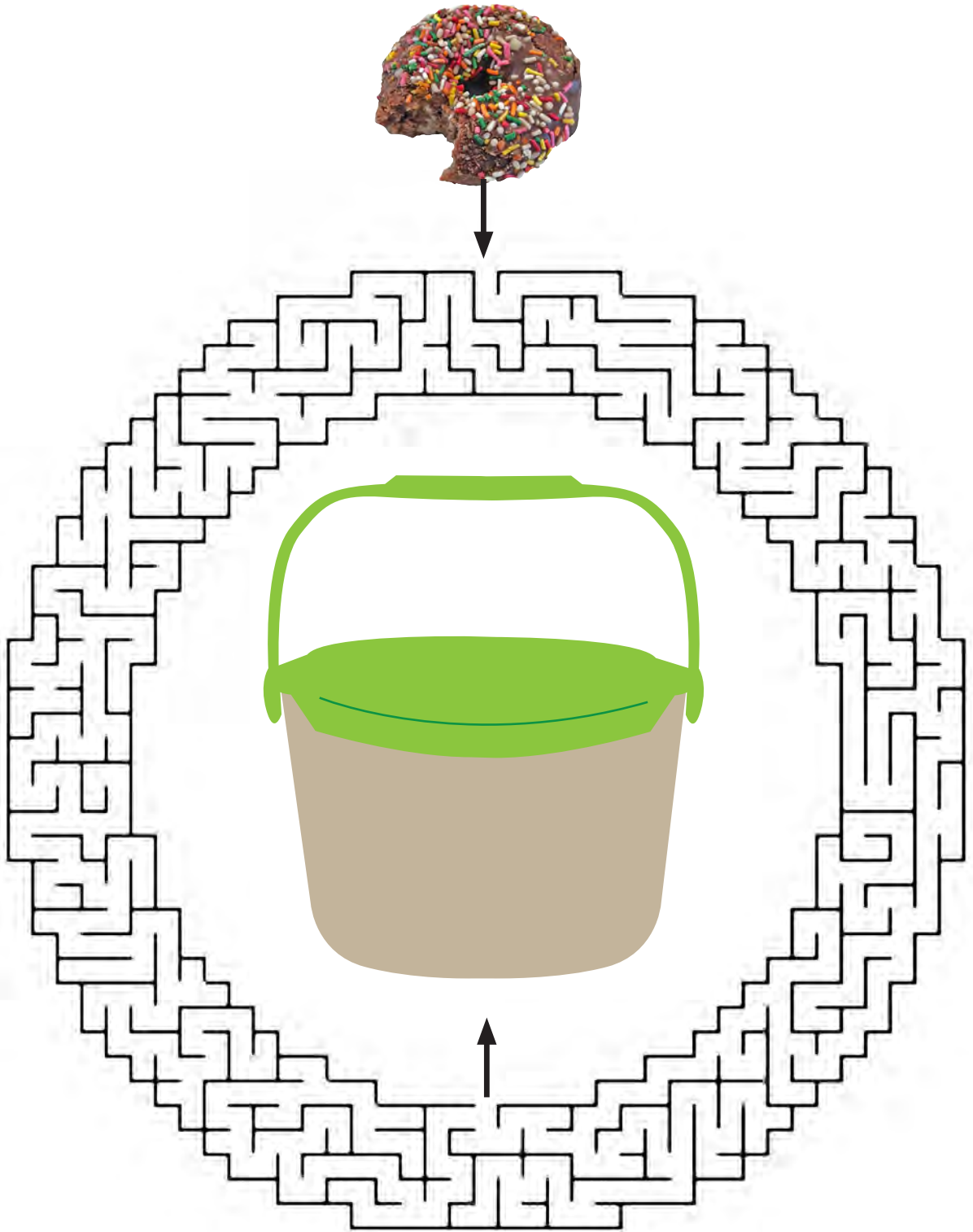
- Every ton of glass recycled saves over a ton of natural resources.
- For every 10% of recycled glass used to make new glass, the energy cost drops 2-3%.

E D N J Z V S H K Z S K E L B
 J N G Y U E S H C R E A G Z B
 A V O L X A B O Q V I X Z F F
 R M H T A T L M E X R E U S E
 S Z T D S O Q U Q E O P Q S D
 L R O D R E S Y Q H T K G D B
 I S K S F P M A R E C Y C L E
 Q S L L L Y B I N R A B O O A
 U T E L L U C O L D F Q S M X
 I E G L C L A I T C U S G D O
 D C C F O P G I W T A V K T G
 Z H B U M Y O H B L L R E F F
 U K W K D D X G G C Q E V L S
 M S V R M E C O C V R I S H T
 Q O V X D J R R Q H I U O C E

The Handy Kitchen Pail.

Use it to store food scraps and food-soiled paper until you empty into the green **Organics** cart.

Follow the maze to put the stale donut in the kitchen pail!



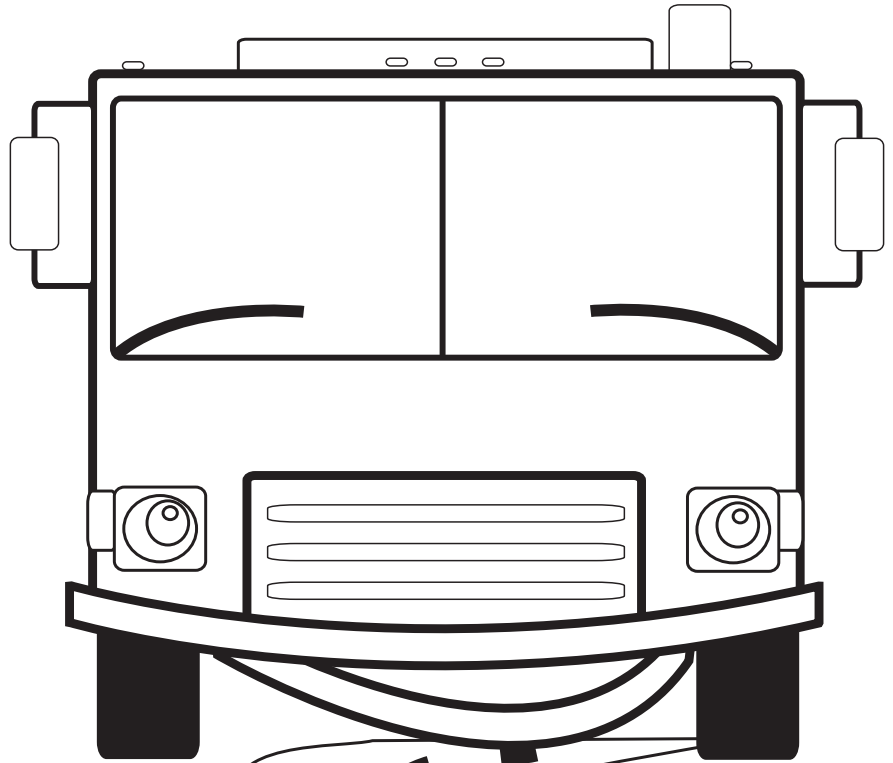
YAY!
**You can
breathe
easier...**

**The ACI
collection
vehicle fleet
is powered by
Compressed
Natural Gas (CNG)!**

**THE BENEFITS OF
USING CNG:**

- **Reduced carbon footprint/emissions.**
- **Reduced noise.**
- **Reduced fuel cost.**

Draw yourself driving the collection truck!



MATERIAL LIFE CYCLES

Compost Manufacturing



WORD SEARCH

- COMPOST
- CONSERVE
- CONTAMINANTS
- CURING
- DECOMPOSITION
- EROSION
- FOODSCRAPS
- NITROGEN
- ORGANIC
- RECYCLE
- REDUCE
- REUSE
- RUNOFF
- SCREENING
- SHRED
- WINDROWS
- YARDWASTE

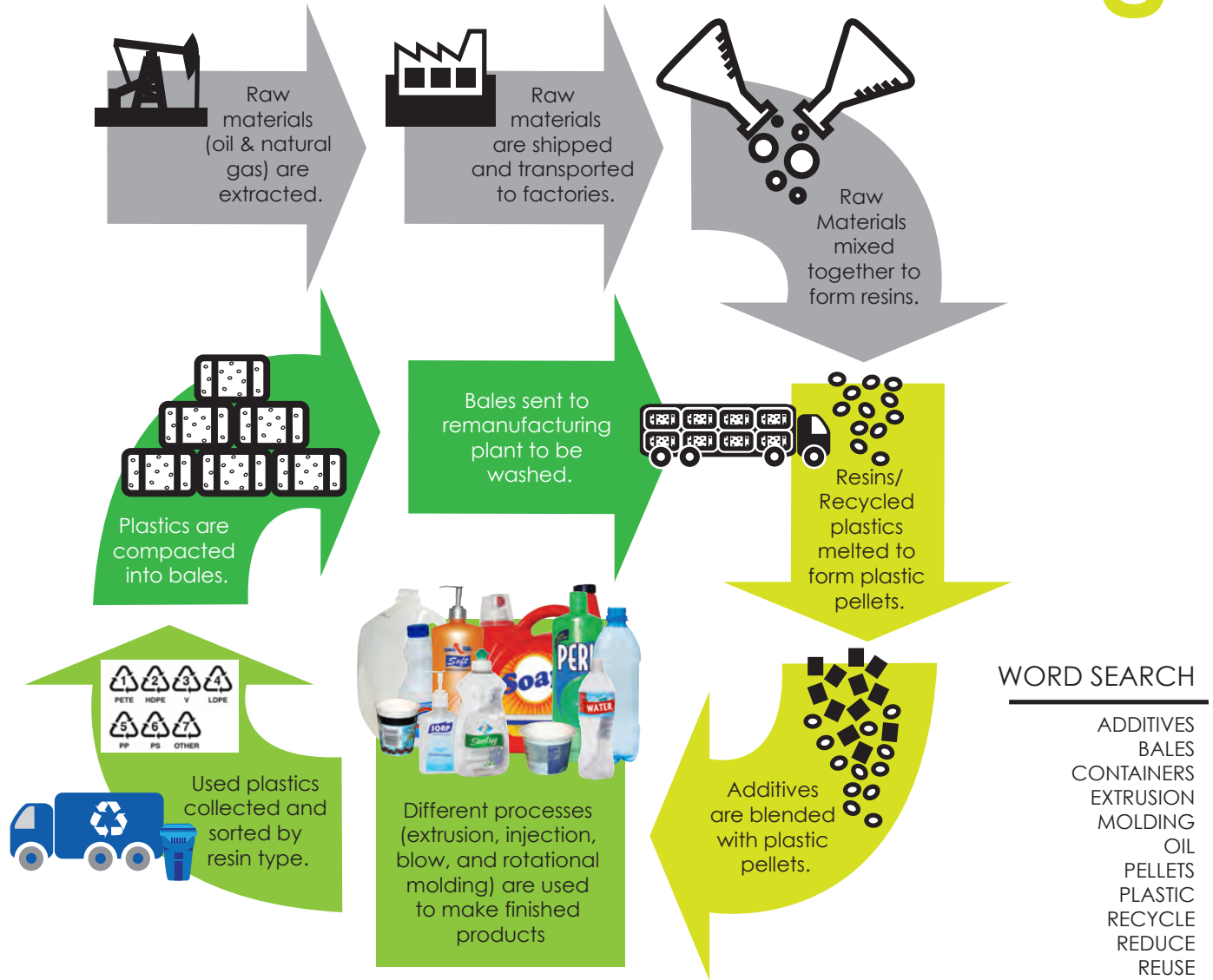
DID YOU KNOW?

- Compost conserves water by increasing water holding capacity of soil by 3-10%.
- Compost stabilizes soil pH, and reduces soil erosion and runoff.

Z O N W C R D W O E R P T T S
 B Y N O U I I Z L D E N S L T
 C C A N I N N C E S D I O W N
 L U O R D T Y A P M U T P D A
 E F R R D C I A G M C R M Z N
 F E O I E W R S A R E O O L I
 Y W S R N C A Y O F O G C V M
 S H R U S G F S S P F E L H A
 M H G D E R H S T X M N S Q T
 I S O L Y R B U T E U O I T N
 Q O S C R E E N I N G C C Y O
 F E V R E S N O C R Y Y E E C
 W Y O X A P P V M T Q S F V D
 Y H H M N C I A J V T D X O M
 E R O S I O N G Y S U P L S K

MATERIAL LIFE CYCLES

Plastic Manufacturing



WORD SEARCH

- ADDITIVES
- BALES
- CONTAINERS
- EXTRUSION
- MOLDING
- OIL
- PELLETS
- PLASTIC
- RECYCLE
- REDUCE
- REUSE
- TUBS

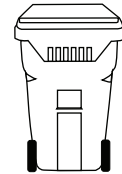
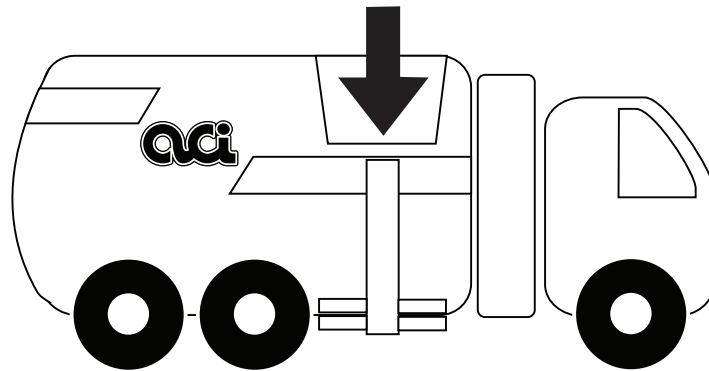
DID YOU KNOW?

- Recycling plastic uses only 12% of the energy required to make plastics from raw materials.
- Every pound of recycled PET plastic flakes used reduces greenhouse gas emissions by 71%, rather than using raw materials to make PET plastics.

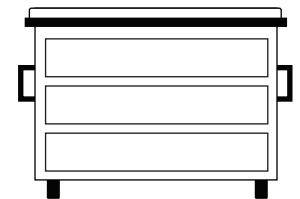
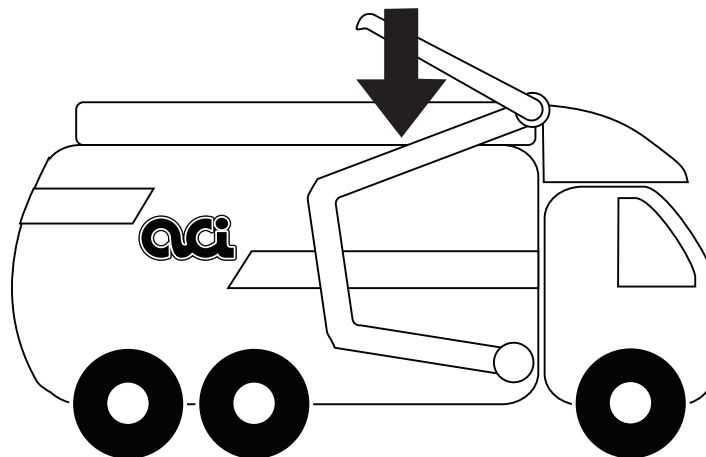
I A C W D E Q S M R G S V J O
 A D S O C X I X T Q E Y P M C
 G D I U A T L R I E O U V X A
 T L D T S R R O F C L E S V M
 K E P I B U W G K D P L M E E
 R M K J T S A D K L U C E N T
 B A L E S I N W A U M Y T P U
 T P B D O O V S O E K C G A B
 G S W Z L N T E J T J E Q B S
 Y Z E L Y I Q M S U J R K F U
 H G I Y C G N I D L O M M S U
 Z F G H M A I E X U B U S K D
 A Z D T Y W P D Z V Y U A O F
 T D C O N T A I N E R S R Z I
 B H G N M Y Q T F X P L P H

Different types of trucks for collecting materials:

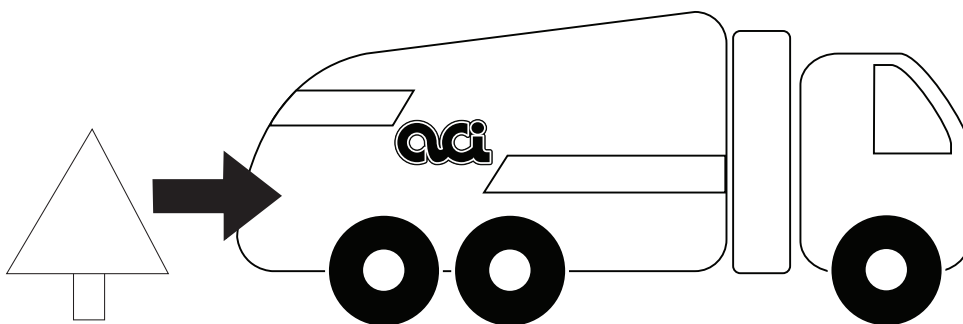
Which one of these trucks collects your garbage, recyclables and organics?



AUTOMATED SIDE LOADER (ASL): Used to empty carts. Has a hydraulic arm that “automates” the collection process and “loads” (empties) carts into a “side” hopper.



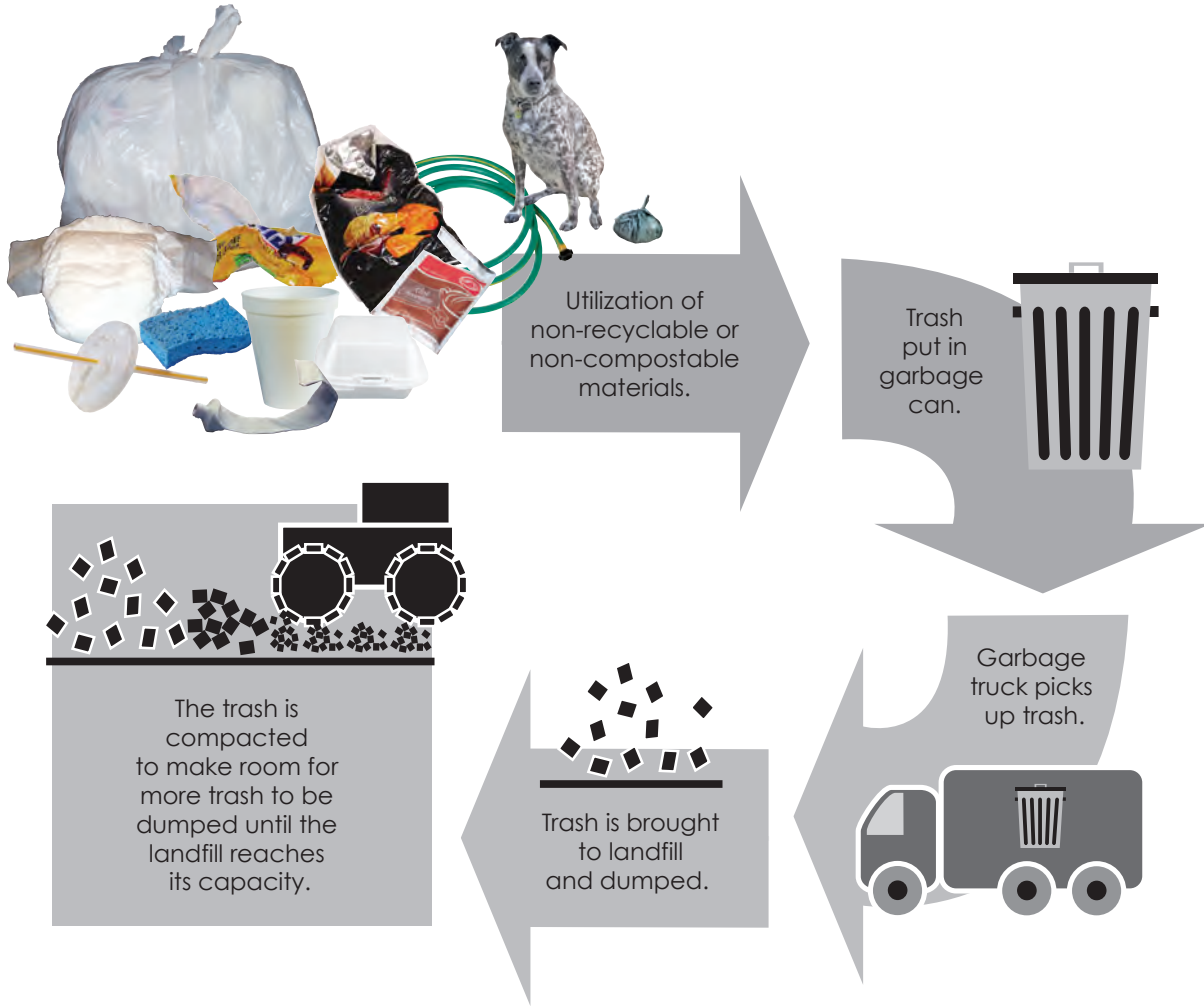
FRONT END LOADER (FEL): Used to empty bins. Has hydraulic forks that slide into the pockets of bins and lifts the bin over the “front end” of the truck to “load” (empty) bins into a hopper in the top of the truck.



REAR END LOADER (REL): Used to collect a variety of items. (ACI uses them to collect holiday trees.) Has a hydraulic blade that compacts materials that are “loaded” by hand into the “rear end” hopper of the truck.

MATERIAL LIFE CYCLES

Waste to Landfill



WORD SEARCH

- COMPACTION
- DUMP
- FINITE
- GARBAGE
- LANDFILL
- METHANE
- POLLUTION
- RECYCLE
- REDUCE
- RESOURCES
- REUSE
- TRASH
- TRUCK
- WASTE

DID YOU KNOW?

- The average American creates 4.38 lbs of garbage per day.
- 135 million tons of garbage went to American landfills in 2012.
- Landfills create 17.5% of all man-made methane gas. Methane contributes to global warming.
- Materials that are dumped at a landfill never enter the economic market again. This causes us to use more of Earth's precious finite resources and in so doing use more energy and create more pollution.
- We can take better care of the planet by practicing the 5Rs: Reduce, Reuse, Refuse, Rot (compost) and Recycle!

N E B B W N B D N J Y E H I O
 K D T I D E I O O R B C B K E
 U G Z I T N I Y I L T U K D R
 T T Q S N T B E T N Q D K M V
 F R A K U I E L C Y C E R J G
 L W U L S H F F A Z Y R Q I A
 K A L C D P M Z P K H C I E R
 V O N U K E D N M W Z F R E B
 P R M D T R E S O U R C E S A
 V P G H F N J L C L B O U R G
 M W A U N I V N B J L E S R E
 Y N S X G A L J I W V G E H S
 E J T R A S H L N A V D Y O B
 G T F I I E H F F Z N S P O Z
 D Y T Z P R P R G R Q H I B C



**Small changes can add up to
BIG reductions in waste.
Take the “Aim for Zero” pledge
to reduce waste!**

***I, _____, pledge to do my best
to reduce waste! I will practice the 5Rs (Reduce,
Reuse, Refuse, Rot (Compost) and Recycle) while
at home, school and play. One of the things I will
do to reduce waste is:***

ALUMINUM LIFE CYCLE
WORD SEARCH SOLUTION

S S + + + + + M + M + +
+ E H + + + + + U A E + +
+ + I E + + + + + N T + + +
+ + + R E + + + + U I + + + +
+ + + + O T + + F X M + + + +
+ + + + + T S A U + U + + + R
+ + + + + C A + + L + + + E
+ + + + + T B A + + A + + + D
E + + + U + + + F S N A C + U
+ N + R + + + R E C Y C L E C
+ + I S I S Y L O R T C E L E
+ N + M + + + + E + + + + +
G + + + + + U + + + + + + +
+ + + + + S + + + + + + + +
+ + + + + E + + + + + + + +

- (Over,Down,Direction)
ALUMINUM(11,8,N)
BAUXITE(7,8,NE)
CANS(13,9,W)
ELECTROLYSIS(15,11,W)
FACTORIES(9,9,NW)
MANUFACTURING(13,1,SW)
MINE(4,12,NW)
RECYCLE(8,10,E)
REDUCE(15,6,S)
REUSE(10,11,SW)
SHEETS(2,1,SE)

COMPOST LIFE CYCLE
WORD SEARCH SOLUTION

+ + N + C R + W + E R + T + S
+ Y + O U I I + L + E N S + T
C + A N I N N C + S D I O + N
+ U O R D T Y A P + U T P + A
+ F R R D C I A G + C R M + N
F E O I E W R S + R E O O + I
+ W S R N C A + O + O G C + M
S + + U S G + S + P + E + + A
+ + + D E R H S T + M N + + T
+ + O + + R + + + E + O + + N
+ O S C R E E N I N G + C + O
F E V R E S N O C + + + + E C
+ + + + + + + + + + + + D
+ + + + + + + + + + + + +
E R O S I O N + + + + + + + +

- (Over,Down,Direction)
COMPOST(13,7,N)
CONSERVE(9,12,W)
CONTAMINANTS(15,12,N)
CURING(1,3,SE)
DECOMPOSITION(15,13,NW)
EROSION(1,15,E)
FOODSCRAPS(1,12,NE)
NITROGEN(12,2,S)
ORGANIC(11,7,NW)
RECYCLE(4,7,NE)
REDUCE(11,1,S)
REUSE(6,10,NW)
RUNOFF(6,1,SW)
SCREENING(3,11,E)
SHRED(8,9,W)
WINDROWS(8,1,SW)
YARDWASTE(2,2,SE)

GLASS LIFE CYCLE
WORD SEARCH SOLUTION

E + + + + + H + + S + + + +
J N + + + + S + C + E + + + +
A + O + + A + O + + I + + + +
R + + T A + L + + + R E U S E
S + + D S O + + + + O + + S +
L + O + R E S + + + T + + D +
I S + S + + M A R E C Y C L E
Q + + + + B I N + A + + O +
U T E L L U C O L D F + S M +
I E + + + + + T + + S + + +
D + C + + + + + T A + + + +
+ + + U + + + + + L L + + + +
+ + + + D + + + G + + E + + +
+ + + + + E + + + + + S + + +
+ + + + + R + + + + + + + +

- (Over,Down,Direction)
BOTTLES(7,8,SE)
COLORS(9,2,SW)
CULLET(7,9,W)
FACTORIES(11,9,N)
GLASS(9,13,NE)
JARS(1,2,S)
LIMESTONE(9,9,NW)
LIQUID(1,6,S)
MOLDS(14,9,N)
RECYCLE(9,7,E)
REDUCE(7,15,NW)
REUSE(11,4,E)
SAND(7,6,SE)
SODAASH(2,7,NE)

PAPER LIFE CYCLE
WORD SEARCH SOLUTION

+ + + + + E C R A F T S S V
+ + + + + L N + + + + G + E P
+ + + + C + E + + + O + R L L
+ + + Y + + R + + + L + M + A U
+ + C + + + G + + + I + P B P
N E + + + + Y + + C + A + + D
R O + + + + + O + + P + + + O
+ + I S L L I M R E P A P + O
+ + + T + + P + R E S + + + W
+ + + + U O + + + + D U + + + +
+ + + + S L S E R T U E + + +
+ + + T + + L + + + + C R +
+ + I + + + + O + + + + + E +
+ N + + + + + P + + + + + + +
G + + + + + + + + + + + + +

- (Over,Down,Direction)
BALES(14,5,N)
CRAFTS(8,1,E)
ENERGY(7,1,S)
LOGS(10,4,NE)
PAPER(13,5,SW)
PAPERMILLS(13,8,W)
POLLUTION(9,14,NW)
RECYCLE(1,7,NE)
REDUCE(9,8,SE)
REUSE(14,12,NW)
TREES(11,11,W)
VERMICOMPOSTING(15,1,SW)
WOODPULP(15,9,N)

PLASTIC LIFE CYCLE
WORD SEARCH SOLUTION

+ + + + + E + S + R + + + + +
A + + O C X + + T + E + + + +
+ D I U + T + + + E + U + + +
+ L I D + + R + + + + L E S + +
+ E + I + U + + + + P L + E +
R + + + T S + + + L + C E + T
B A L E S I + + A + + Y + P U
+ + + + + O V S + + + C + + B
+ + + + N T E + + + E + + S
+ + + + + I + + S + + R + + +
+ + + + C G N I D L O M + + +
+ + + + + + + + + + + + + +
+ + + + + + + + + + + + + +
+ + C O N T A I N E R S + + +
+ + + + + + + + + + + + + +

- (Over,Down,Direction)
ADDITIVES(1,2,SE)
BALES(1,7,E)
CONTAINERS(3,14,E)
EXTRUSION(6,1,S)
MOLDING(12,11,W)
OIL(4,2,SW)
PELLETS(14,7,NW)
PLASTIC(11,5,SW)
RECYCLE(12,10,N)
REDUCE(1,6,NE)
REUSE(10,1,SE)
TUBS(15,6,S)

GARBAGE LIFE CYCLE
WORD SEARCH SOLUTION

+ E + + + + + N + + E + + +
+ + T + + E + O O + + C + + +
+ + + I T + I + I + + U + + +
T + + S N T + + + + D + + +
+ R A + U I E L C Y C E R + G
L W U L + + F + A + + R + + A
+ A L C D + M + P + + + + R
+ O N U K E + + M + + + R + B
P + M D T R E S O U R C E S A
+ P + H F + + C + + + U + G
+ + A + + I + + + + + S + E
+ N + + + + L + + + + + E + +
E + T R A S H L + + + + + + +
+ + + + + + + + + + + + + +
+ + + + + + + + + + + + + +

- (Over,Down,Direction)
COMPACTION(9,10,N)
DUMP(5,7,SW)
FINITE(7,6,NW)
GARBAGE(15,5,S)
LANDFILL(1,6,SE)
METHANE(7,7,SW)
POLLUTION(1,9,NE)
RECYCLE(13,5,W)
REDUCE(12,6,N)
RESOURCES(6,9,E)
REUSE(13,8,S)
TRASH(3,13,E)
TRUCK(1,4,SE)
WASTE(2,6,NE)

FORK TO FARM
WORD SCRAMBLE SOLUTION

C O M P O S T
F A C I L I T Y
S C R E E N I N G
W I N D R O W S
T R U C K
C U R I N G
F A R M I N G
G A R D E N I N G
P R O C E S S
W A S T E

RECYCLING SAVES WATER
WORD SCRAMBLE SOLUTION

P A P E R
G L A S S
R E C Y C L I N G
V I R G I N F I B E R S
G A L L O N S
A L U M I N U M
P O L L U T I O N
M E T A L
S T E E L
B O T T L E D W A T E R

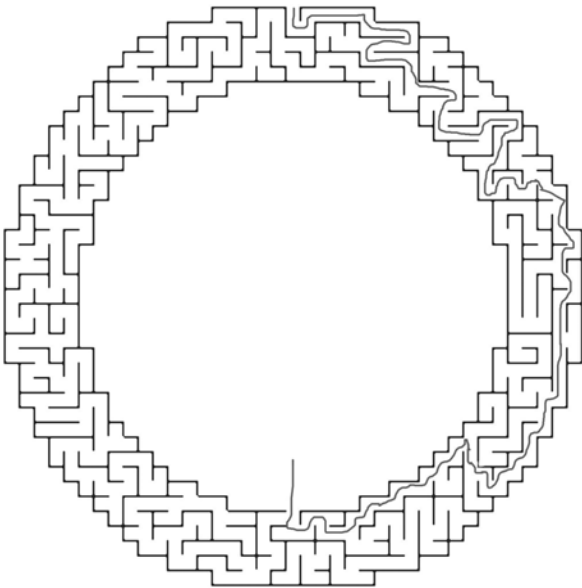
SINGLE-USE VS.
REUSABLES SOLUTION



F O R K T O F A R M

C O N S E R V E W A T E R

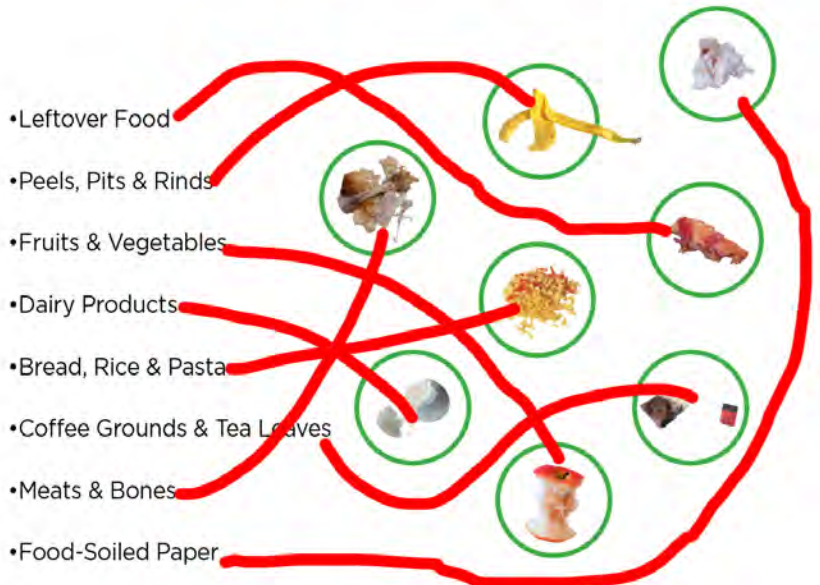
DONUT MAZE SOLUTION



Proper sorting makes a difference!
What belongs in each cart?



WHAT BELONGS IN THE KITCHEN PAIL? SOLUTION





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