

Educational Coloring & Activity Book

# CAART SMART



CITY OF SAN ANTONIO  
SOLID WASTE MANAGEMENT  
DEPARTMENT

GRADES  
6th - 8th





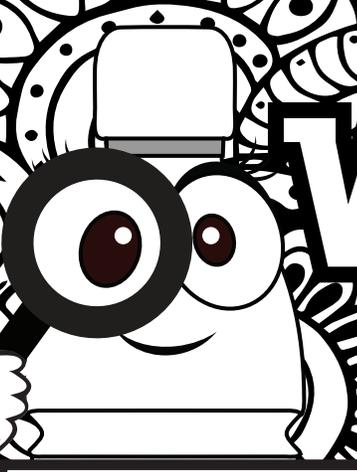
# WORD CHALLENGE

Unscramble the letters to spell a word.

- |                   |                     |
|-------------------|---------------------|
| tnwgraudroe _____ | uesre _____         |
| orvcsene _____    | mcponsiog _____     |
| eehatnm _____     | yecelrc _____       |
| eeurd _____       | poecmodes _____     |
| plouitoni _____   | mtreinoenv _____    |
| liladfnl _____    | leoerbbiddaga _____ |
| acngior _____     | abargeg _____       |

Complete like a Sudoku using : global warming, biodegradable, conserve, natural resources, blue cart, and organic.

	CONSERVE				BIODEGRADABLE
				NATURAL RESOURCES	
CONSERVE	BLUE CART		BIODEGRADABLE		
	BIODEGRADABLE		BLUE CART	ORGANIC	CONSERVE



# WORD SEARCH

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

- |         |           |           |          |
|---------|-----------|-----------|----------|
| AIR     | ECOSYSTEM | HABITAT   | OXYGEN   |
| ANIMALS | ENERGY    | HOME      | RESOURCE |
| CARE    | EXTINCT   | LANDFILLS | SOIL     |
| CLEAN   | FUEL      | LITTER    | WATER    |
| EARTH   | FOREST    | OCEANS    | WORLD    |

# RUNAWAY MATH

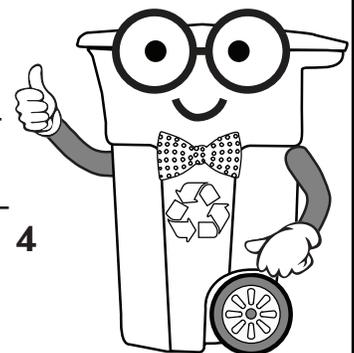
0				+		+		=		2
+		÷		+					x	
			=	9		x	6	=	5	+
=		=						=		
3	3	0		9	$\frac{2}{3}$			4		
	$\frac{1}{2}$			+	=	1	+		+	
0		8			8		4			1
						x		=	$\frac{1}{6}$	
=										$\frac{1}{2}$
7					$\frac{2}{3}$		$\frac{1}{3}$		4	

Use the following pieces to complete the runaway math puzzle.  
Two of the pieces will not be needed.

1	=	3	=	÷	x	=	$\frac{1}{2}$	9	$\frac{1}{3}$	3	7	8	÷	8
9	$\frac{1}{6}$	0	0	1	1	2	0	7	=	$\frac{1}{3}$	$\frac{1}{2}$	4	4	3
6	0	4												

Rewrite the equations from the runaway math puzzle.

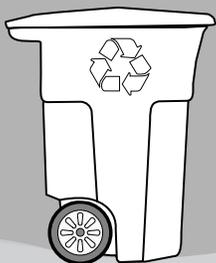
- |  |   |
|--|---|
| 1. $0 + \underline{\quad} = 3$                                     | 9. $\underline{\quad} + \underline{\quad} = \underline{\quad}$                      |
| 2. $\underline{\quad} + 6 = 5 \underline{\quad}$                   | 10. $0 \underline{\quad} 8 \underline{\quad}$                                       |
| 3. $2 \underline{\quad} + \underline{\quad} = 1 \underline{\quad}$ | 11. $\underline{\quad} + 9 \underline{\quad} 9 + \underline{\quad}$                 |
| 4. $\underline{\quad} \underline{\quad} = 0$                       | 12. $3 \underline{\quad} = 7$   |
| 5. $\underline{\quad} \times \underline{\quad} =$                  | 13. $\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$ |
| 6. $\underline{\quad} + 4 = \underline{\quad}$                     | 14. $\underline{\quad} \underline{\quad} = 4$                                       |
| 7. $\underline{\quad} - \underline{\quad} = 8 \underline{\quad}$   | 15. $\underline{\quad} = 4$   |
| 8. $1 + \underline{\quad} + \underline{\quad}$                     | 16. $\underline{\quad} \times 5 = 4 \underline{\quad}$                              |



# DECOMPOSITION in the Landfill

Have you ever thought about how long a piece of garbage will last in the landfill after you throw it away? Take a look at the items below to see how long it takes for them to decompose in the landfill.

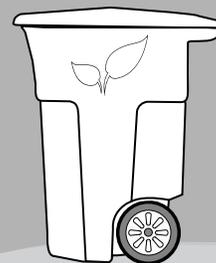
Items below with a recycle symbol can be placed in the blue recycle cart and items with a leaf can be placed in the green organics cart.



Blue Cart (Recycle)



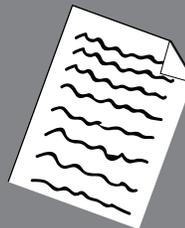
Green Cart (Organics)



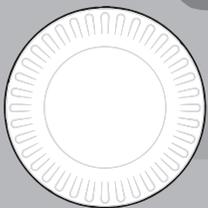
\* SOIL AND MOISTURE CONDITIONS MAY AFFECT DECOMPOSITION TIMES



Apple Core  
3-4 weeks



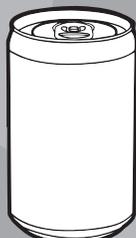
School Paper  
1-2 weeks



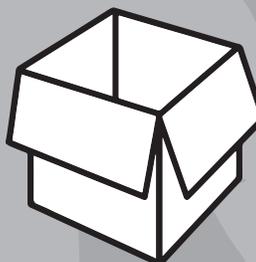
Paper Plate  
1 year



Glass Bottles  
1 + million years

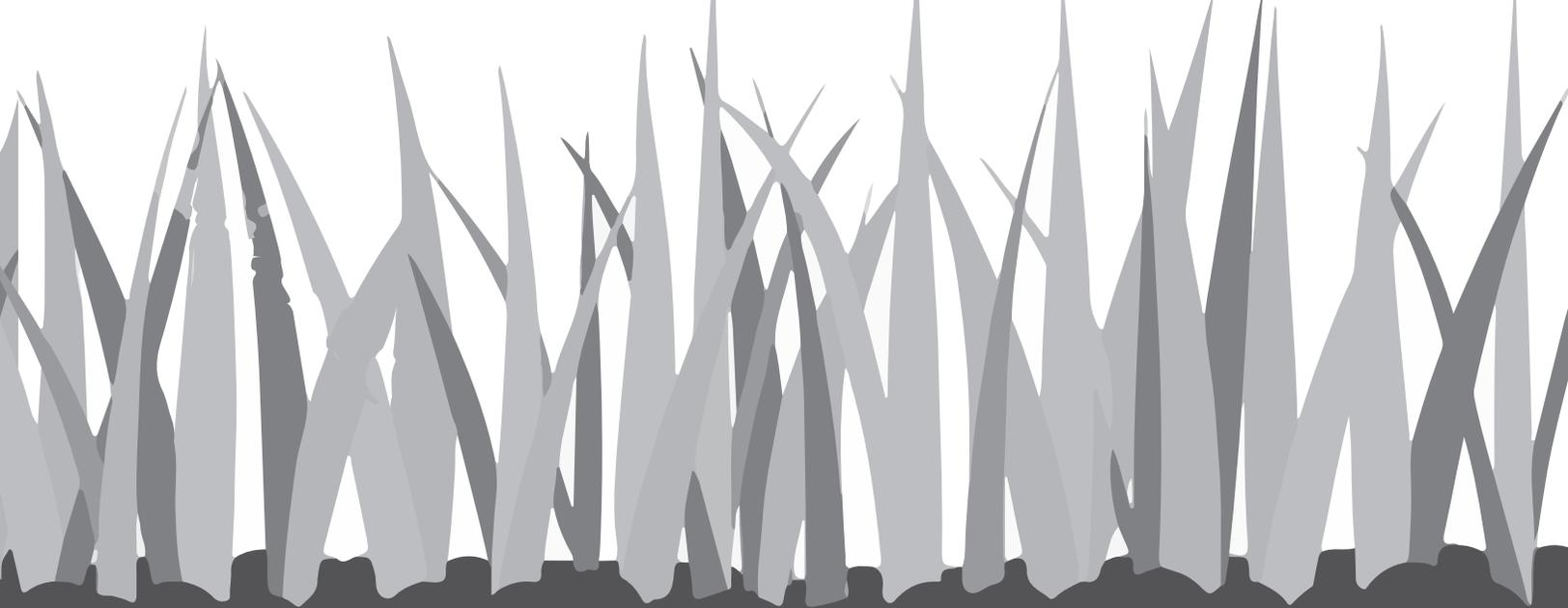


Aluminum Soda Cans  
200 - 500 years



Cardboard Box  
2 months





**Plastic Jug**  
1+ million years



**Rubber Tire**  
NEVER!



**Wool Sock**  
1 year



**Chip Bag**  
10-80 years

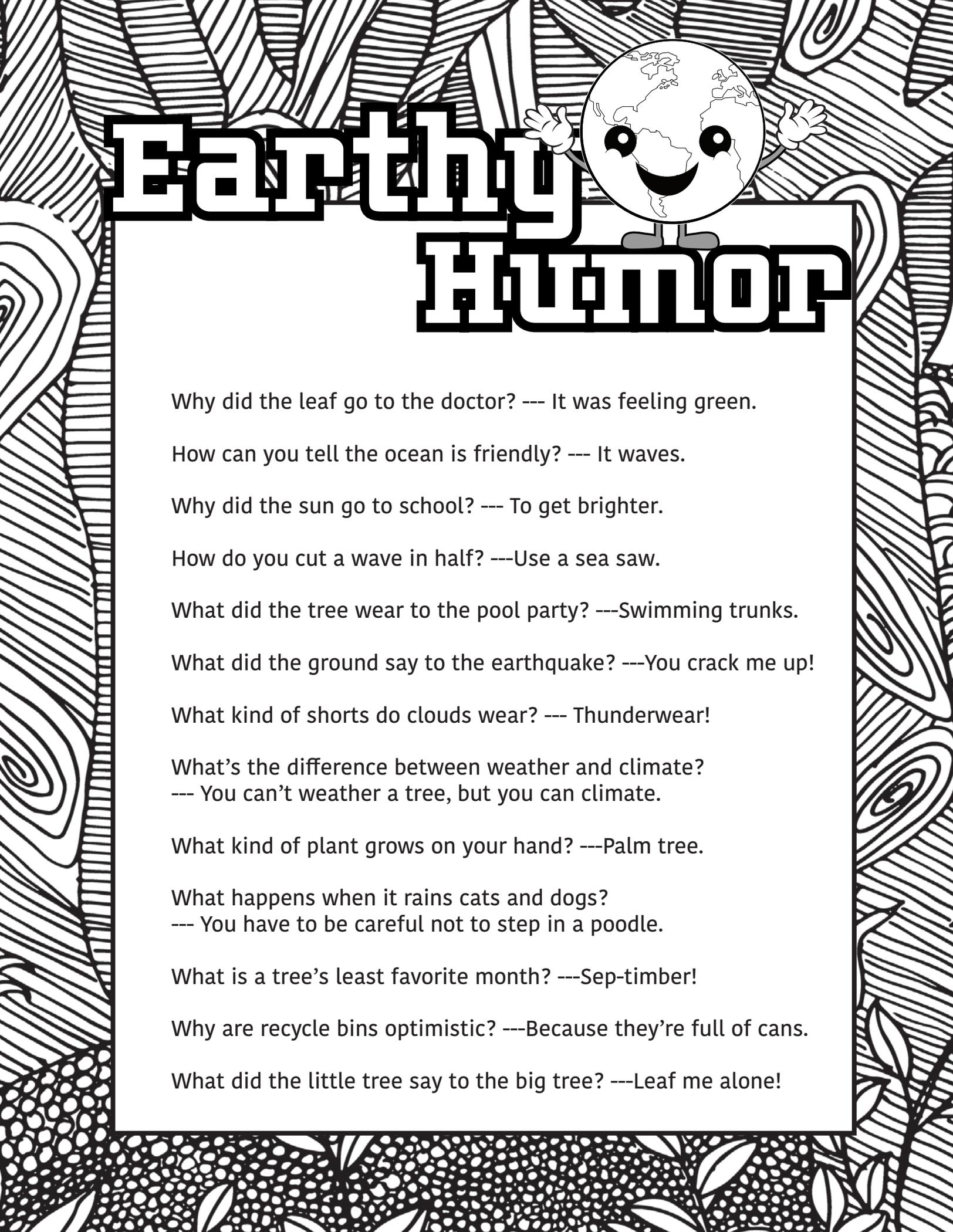


**Styrofoam Cup**  
1+ million years



**Soup Can**  
50 years





# Earthly Humor

- Why did the leaf go to the doctor? --- It was feeling green.
- How can you tell the ocean is friendly? --- It waves.
- Why did the sun go to school? --- To get brighter.
- How do you cut a wave in half? ---Use a sea saw.
- What did the tree wear to the pool party? ---Swimming trunks.
- What did the ground say to the earthquake? ---You crack me up!
- What kind of shorts do clouds wear? --- Thunderwear!
- What's the difference between weather and climate?  
--- You can't weather a tree, but you can climate.
- What kind of plant grows on your hand? ---Palm tree.
- What happens when it rains cats and dogs?  
--- You have to be careful not to step in a poodle.
- What is a tree's least favorite month? ---Sep-timber!
- Why are recycle bins optimistic? ---Because they're full of cans.
- What did the little tree say to the big tree? ---Leaf me alone!

# Earth Day

Earth Day is a global holiday that celebrates our planet's environment. Every year on April 22, people host different events to honor the Earth.

Environmental activists use Earth Day to increase awareness about issues like global warming and oil spills. They also use the day to urge politicians to pass laws that will help save the environment.

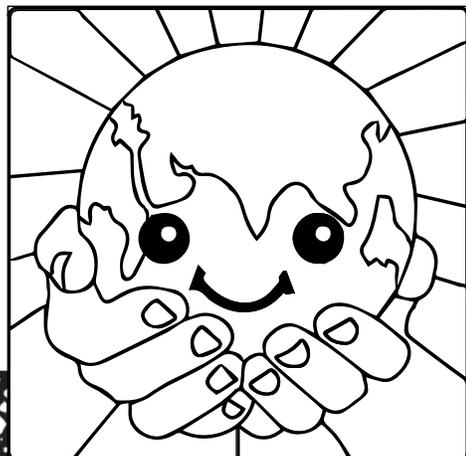
The first Earth Day was held on April 22, 1970. Democratic Senator Gaylord Nelson of Wisconsin started the holiday. Nelson was worried that industrialized countries, like the United States, were too careless with the environment.

After an oil spill off the coast of Santa Barbara in 1969, Nelson proposed several reforms. One reform was to hold a national Earth Day every April 22.

Today more than 500 million people in 175 countries celebrate Earth Day! Students spend the day learning about environmental issues, while activists use the day to rally for new environmental policies.

If you want to get involved in Earth Day and see what you can do to help, check out [www.earthday.org](http://www.earthday.org).

David Watson. "Celebrate Earth Day, Learn How Earth Day Got its Start." Scholastic News Online. [www.scholastic.com/browse/article.jsp?id=11868](http://www.scholastic.com/browse/article.jsp?id=11868). June 27, 2018.



# Recycling is Good for the Earth

What happens to your trash when it leaves your house? Many people do not know. They never think about their trash after they have thrown it away. Most trash is taken to a landfill. At the landfill, it is buried. Some kinds of trash break down in a landfill. It breaks down into smaller pieces. Water may dissolve it. Germs and bugs may eat it.

In time, the trash is broken down and becomes part of the dirt. Banana peels and paper break down quickly. Metals and plastics break down very slowly. They can take hundreds of years to break down. Some kinds of trash like Styrofoam will never break down!

What can we do? One way to help is to recycle. Recycling is taking something that has been used and turning it into something new. Many things can be recycled: paper, metal, glass, cardboard, batteries. and some kinds of plastic. Recycling saves space in landfills and saves resources.

1. Most trash \_\_\_\_\_ when it leaves your house.
2. When trash breaks down it becomes \_\_\_\_\_.
3. \_\_\_\_\_ will never break down in a landfill.
4. What items can be recycled? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_ is taking something that has been used and turning it into something new.



# WHAT DOES THE MESSAGE SAY?

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		17						12						16											22

$\frac{C}{14}$   $\frac{Y}{5}$   $\frac{C}{17}$   $\frac{Y}{22}$   $\frac{C}{17}$   $\frac{L}{13}$   $\frac{M}{5}$   $\frac{O}{6}$   $\frac{O}{16}$   $\frac{U}{4}$   $\frac{X}{1}$   $\frac{Z}{22}$

$\frac{O}{11}$   $\frac{O}{16}$   $\frac{L}{14}$   $\frac{U}{1}$

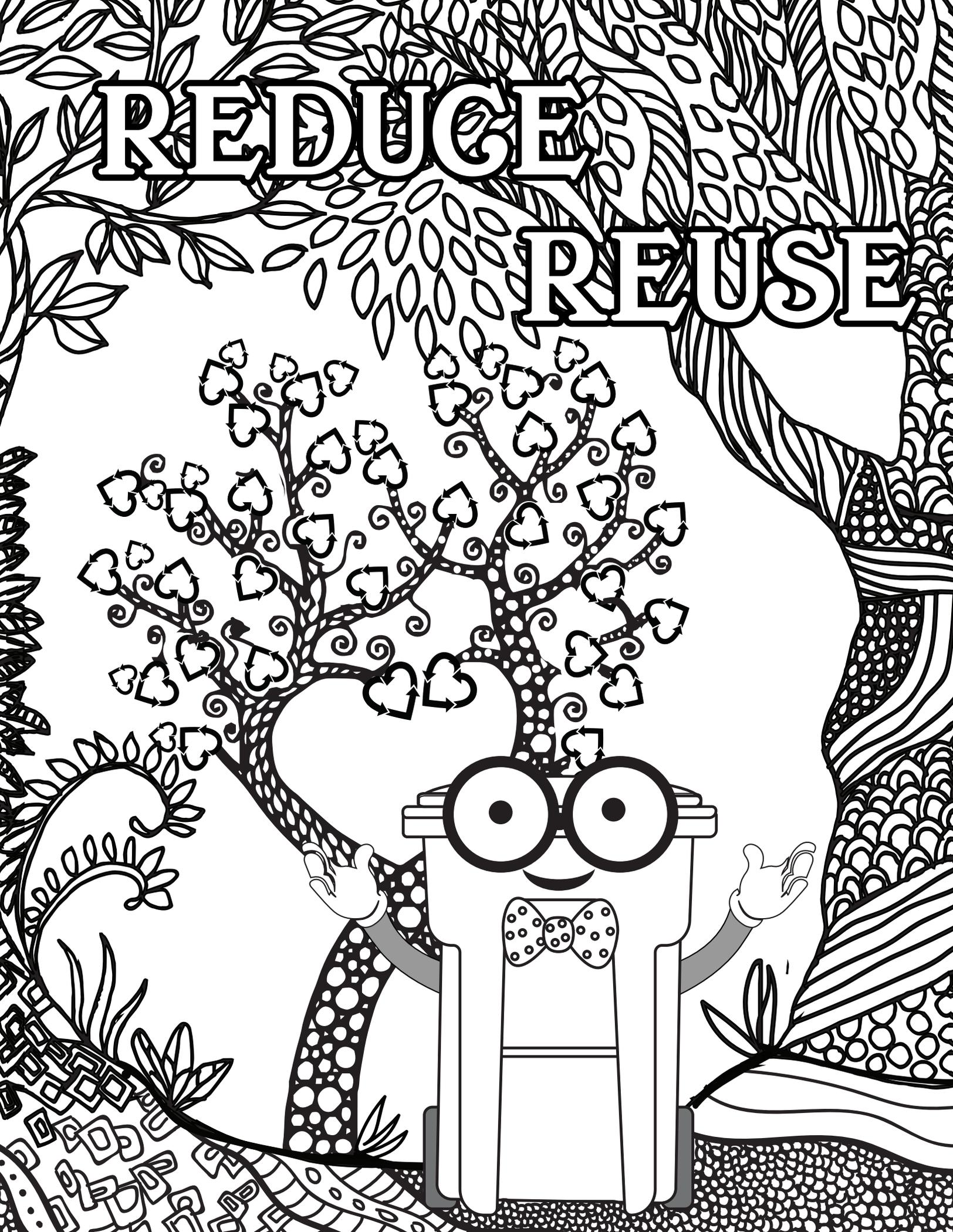
$\frac{I}{8}$   $\frac{L}{14}$   $\frac{I}{12}$   $\frac{M}{24}$   $\frac{N}{18}$   $\frac{O}{6}$   $\frac{U}{5}$   $\frac{Z}{14}$

$\frac{O}{6}$   $\frac{O}{16}$   $\frac{U}{3}$   $\frac{O}{16}$   $\frac{L}{14}$   $\frac{O}{14}$   $\frac{O}{16}$   $\frac{!}{2}$

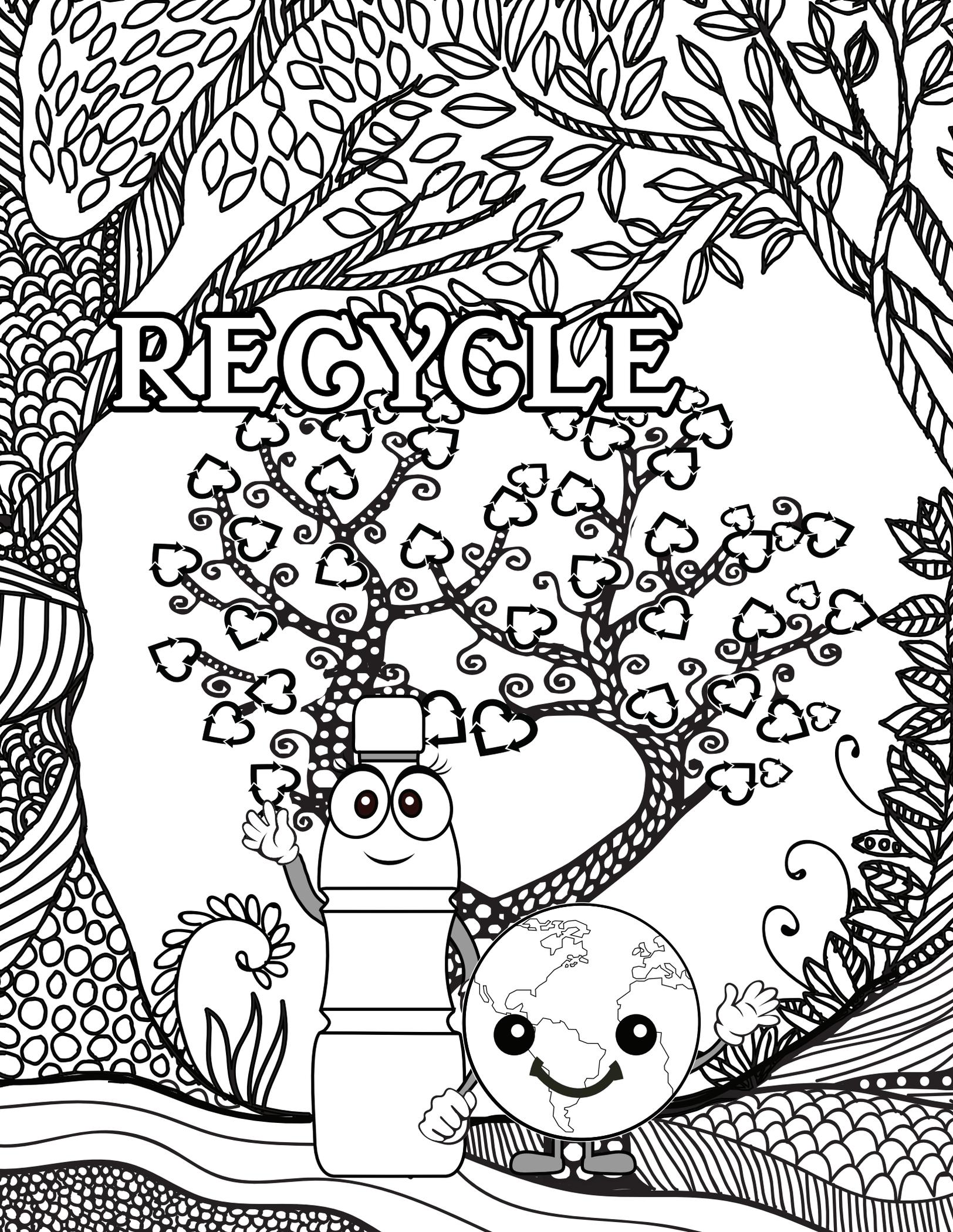


REDUCE

REUSE

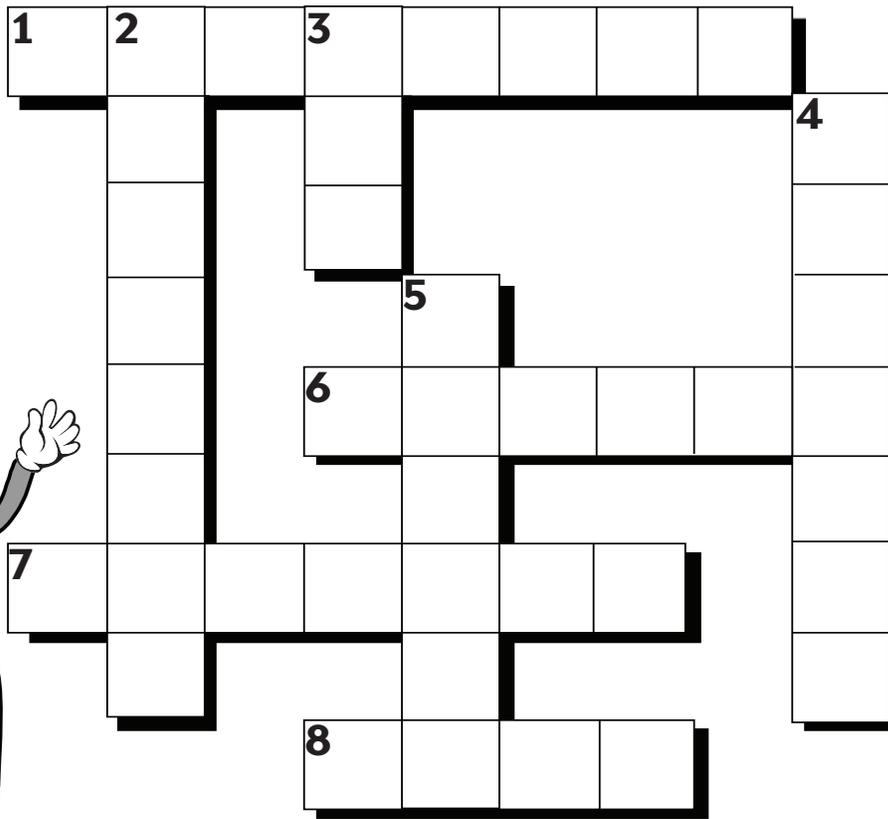
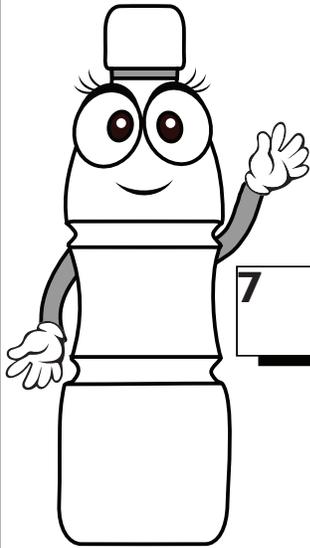


# RECYCLE



# CROSSWORD PUZZLE

Below are some hints, but you'll have to figure out what words go in each blank.



1. Make your own \_\_\_\_\_ paper for gifts from old newspaper comics or decorate grocery bags instead of buying new gift wrap.
2. Use cloth bags and napkins because they are \_\_\_\_\_ and will not have to be thrown away after one use.
3. Reuse a yogurt container as a flower \_\_\_\_\_.
4. Pack your lunch in a reuseable container instead of a paper or \_\_\_\_\_ bag.
5. Reuse or \_\_\_\_\_ old clothes and toys.
6. Plant a tree. A tree can absorb up to 50 \_\_\_\_\_ of carbon dioxide each year.
7. Go to the library to learn more about the connection between reducing, reusing, recycling, and \_\_\_\_\_ change.
8. No matter what product or material you use, take only what you \_\_\_\_\_.

# DECODED

Plastic is coded with a number (1-7) surrounded by the recycling arrow triangle. The type of plastic used is identified by the number.



PETE



HEPE



PVC



LDPE



PP



PS



OTHER

The recycling facility uses this number to sort different types of plastic. Different plastics are used to make different things and react differently to heat. Here's a breakdown of the 7 standard types.



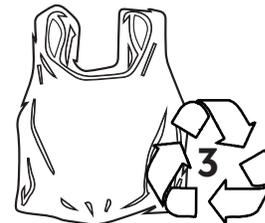
POLYETHYLENE TEREPHTHALATE

water bottles, soda bottles, combs, rope, tote bags, carpet, fiberfill in winter clothing



HIGH-DENSITY POLYETHYLENE

milk jugs, trash bags, soap bottles, detergent containers, toys, bleach containers



POLYVINYL CHLORIDE

grocery bags, plumbing pipes, tile, shoes, cling films, gutters, window frames



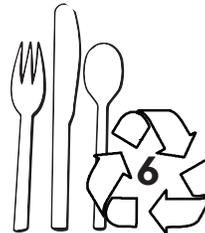
LOW-DENSITY POLYETHYLENE

bread bags, cling wrap, flexible container lids, sandwich bags



POLYPROPYLENE

yogurt containers, tupperware, bottle caps, butter tubs, prescription bottles, disposable cups and plates



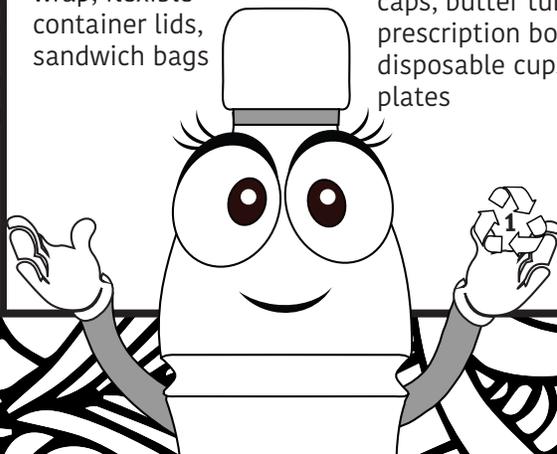
POLYSTYRENE

Plastic utensils, packing foam, disposable coffee cups, plastic food boxes, packing peanuts

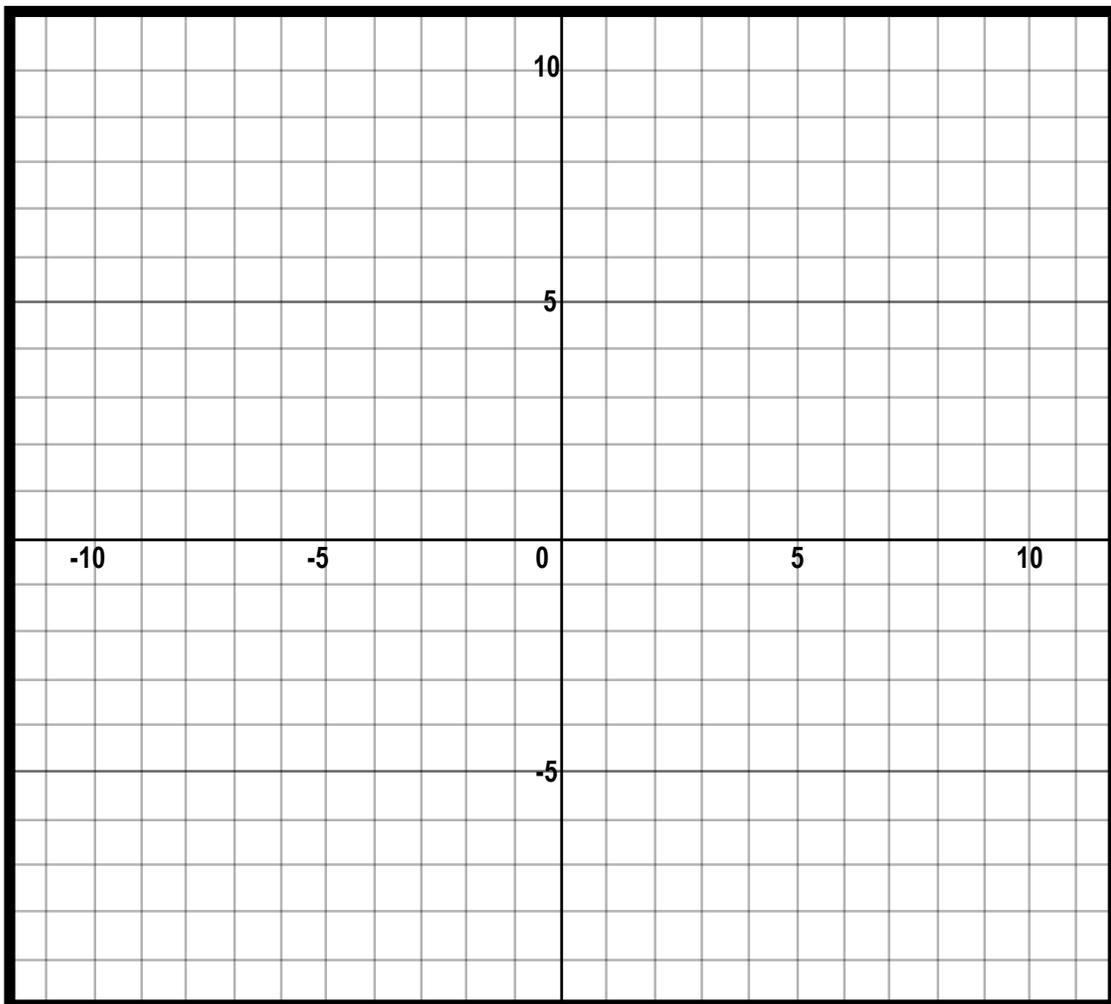


OTHER PLASTICS INCLUDING ACRYLIC, POLYCARBONATE, POLYSTYRENE, FIBERS, NYLON, AND FIBERGLASS.

reusable sports bottles, baby bottles, eyeglasses



# PLOT IT OUT



Plot and connect only the plots within each zone.

Zone A

(7, 3)  
(9, -0.5)  
(9, -1.5)  
(8.5, -2)  
(5, -2)  
(3.5, 1)  
(7, 3)

Zone B

(3, -3)  
(7, -3)  
(8, -2.5)  
(8, -3)  
(6, -6.5)  
(5.5, -7)  
(3, -7)  
(3, -8.5)  
(0.5, -5)  
(3, -1.5)  
(3, -3)

Zone C

(-0.5, -3)  
(-0.5, -7)  
(-5.5, -7)  
(-8, -3)  
(-7, -3)  
(0.5, -3)

Zone D

(-5, -2)  
(-8.5, -2)  
(-9, -1.5)  
(-9, -0.5)  
(-7.5, 2)  
(-9, 3)  
(-4.5, 3)  
(-2.5, -1)  
(-4, 0)  
(-5, -2)

Zone E

(-2.5, 3)  
(-6, 5)  
(-4, 8.5)  
(-3.5, 9)  
(-2.5, 9)  
(-2, 8.5)  
(-0.5, 6)  
(-2.5, 3)

Zone F

(-1.5, 9)  
(3.5, 9)  
(4, 8.5)  
(5.5, 6)  
(7, 7)  
(5, 3)  
(0, 3)  
(1.5, 4)  
(-1, 8.5)  
(-1.5, 9)

# RECYCLING MYTHS

**MYTH: Recycling is hard.**

Provided you have adequate recycling access and opportunities, most items from your kitchen or bath can be recycled such as clean plastic, cans, and glass.

With a little education, recycling can be simple and straightforward.

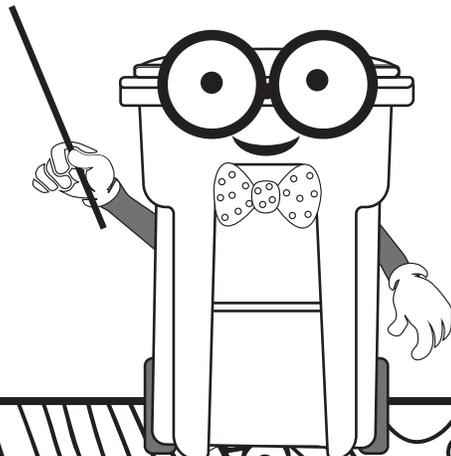
**MYTH: Everything decomposes once it's in the landfill.**

Landfills are designed so that very little oxygen or moisture flows through. Without these two elements to break materials down they do not decompose.

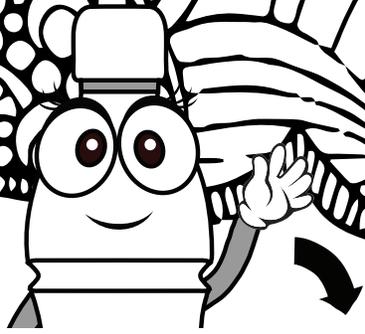
**MYTH: You can recycle anything with a number within the recycling symbol.**

In 1988 the plastic industry created an ID code to differentiate plastic types.

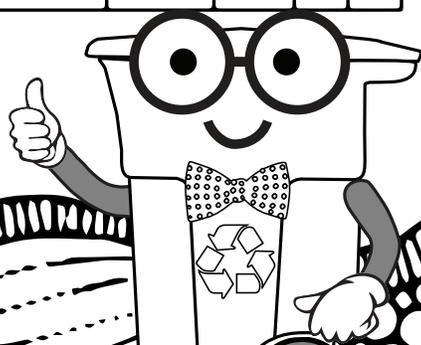
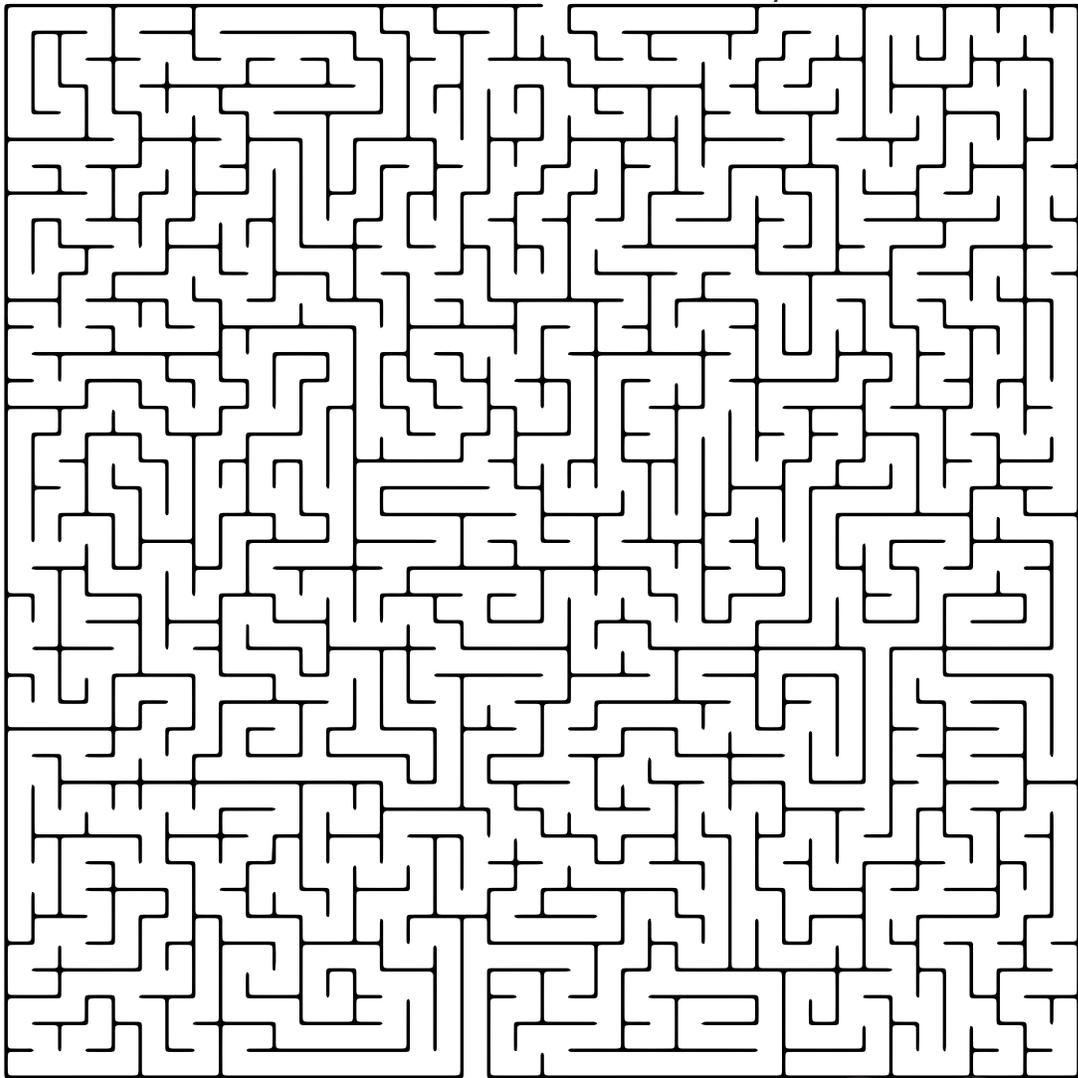
The code on the plastic does not mean it is recyclable or has been recycled. It only identifies the type of plastic from which it is made.



# MAZE GRAZE!



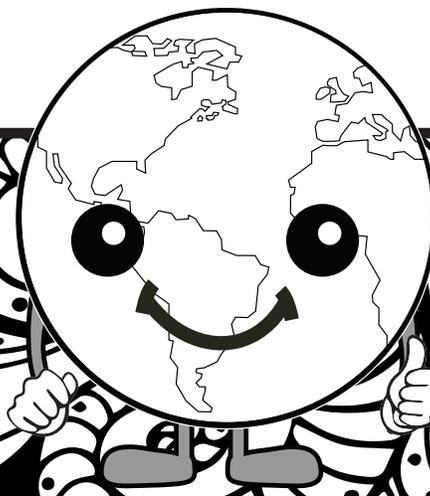
Help Polly Plastic find her way to Curby the Smart Cart.



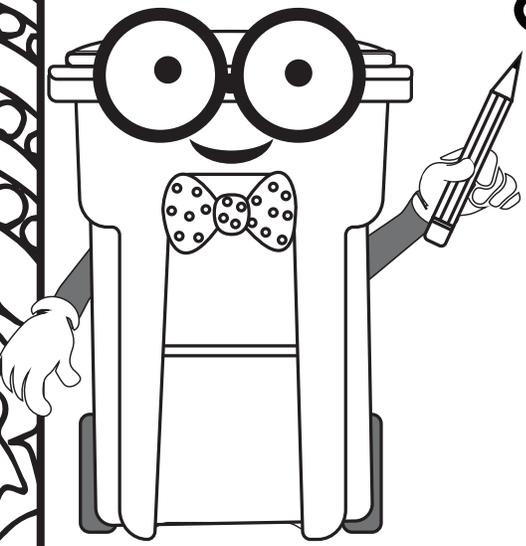
# WORD SCRAMBLE

HOW MANY OF THESE RECYCLING RELATED WORDS CAN  
YOU UNSCRAMBLE?

- |                 |           |
|-----------------|-----------|
| 1. PAREP        | 1. _____  |
| 2. LOETSTB      | 2. _____  |
| 3. ECRECLY      | 3. _____  |
| 4. TCSIPLA      | 4. _____  |
| 5. ATESW        | 5. _____  |
| 6. EWEANSRPP    | 6. _____  |
| 7. EUSRE        | 7. _____  |
| 8. IGPNAGKCA    | 8. _____  |
| 9. RECEDU       | 9. _____  |
| 10. RETIENNMONV | 10. _____ |



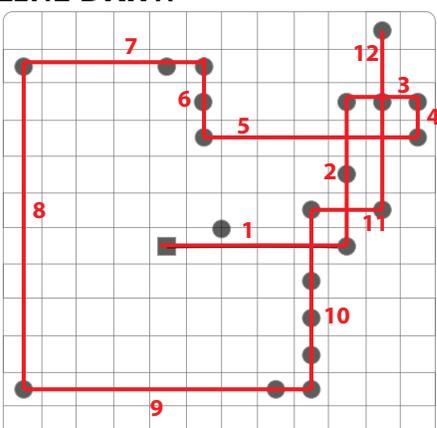
# DRAW ME





# ANSWER KEY

## LINE DRAW



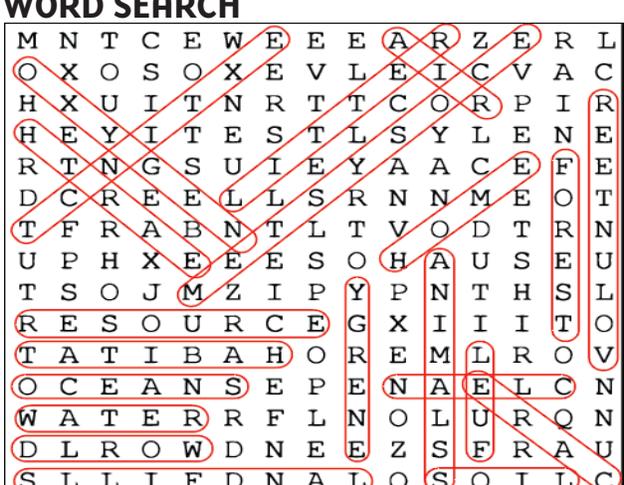
## WORD CHALLENGE

- |             |               |
|-------------|---------------|
| GROUNDWATER | REUSE         |
| CONSERVE    | COMPOSTING    |
| METHANE     | RECYCLE       |
| REDUCE      | DECOMPOSE     |
| POLLUTION   | ENVIRONMENT   |
| LANDFILL    | BIODEGRADABLE |
| ORGANIC     | GARBAGE       |

## MAZE CRAZE

NATURAL RESOURCE	CONSERVE	GLOBAL WARMING	ORGANIC	BLUE CART	BIODEGRADABLE
BIODEGRADABLE	GLOBAL WARMING	BLUE CART	CONSERVE	NATURAL RESOURCES	ORGANIC
ORGANIC	NATURAL RESOURCES	BIODEGRADABLE	GLOBAL WARMING	CONSERVE	BLUE CART
CONSERVE	BLUE CART	ORGANIC	BIODEGRADABLE	GLOBAL WARMING	NATURAL RESOURCES
BLUE CART	ORGANIC	CONSERVE	NATURAL RESOURCES	BIODEGRADABLE	GLOBAL WARMING
GLOBAL WARMING	BIODEGRADABLE	NATURAL RESOURCES	BLUE CART	ORGANIC	CONSERVE

## WORD SEARCH



## Runaway Math

0	0	0 + 2 + 6 = 8	2
+	÷	+	$\frac{1}{3}$
3 x 3 = 9	9 x 6 = 54	x	+
=	=	=	9
3 3 0	9	$\frac{2}{3}$	$\frac{1}{6}$
$\frac{1}{2}$	+	=	1 + 0 + 3 = 4
0 ÷ 8 = 0	8	4	1
$\frac{1}{2}$	$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$	1	$\frac{1}{2}$
=	7	4 $\frac{2}{3} \div \frac{1}{3} = 14$	

# ANSWER KEY

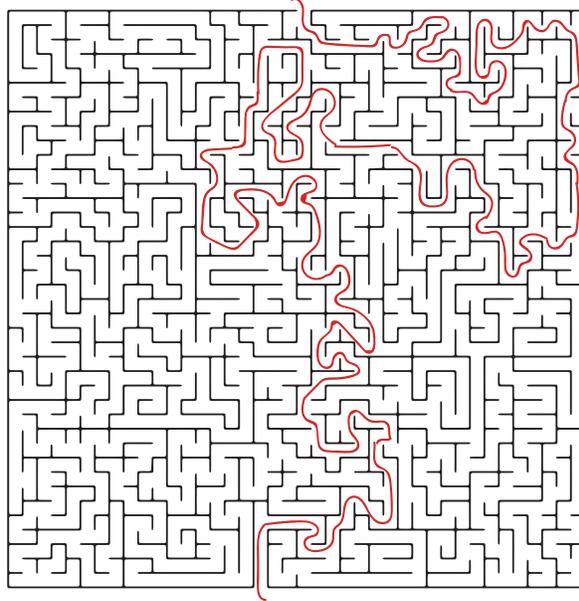
## RECYCLING IS GOOD FOR THE EARTH

1. TAKEN TO A LANDFILL
2. DIRT
3. STYROFOAM
4. PAPER, METAL, GLASS, CARDBOARD, BATTERIES, AND PLASTIC
5. RECYCLING

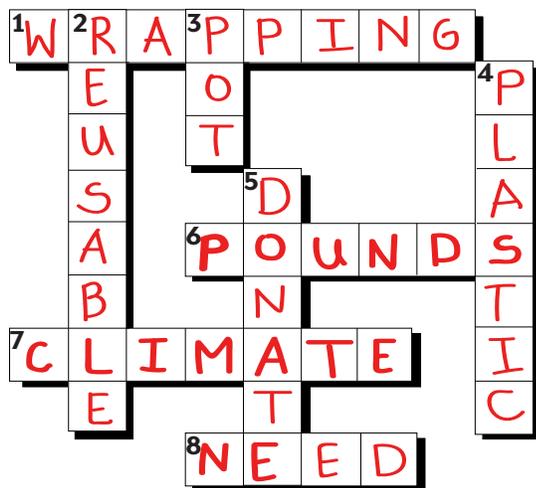
## WHAT DOES THE MESSAGE SAY?

RECYCLE TODAY FOR A BRIGHTER TOMORROW!

## MAZE CRAZE



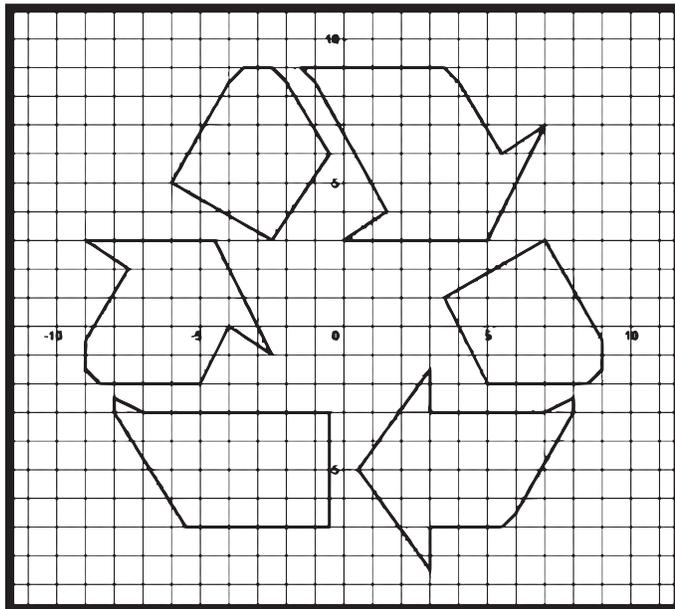
## CROSSWORD PUZZLE



## WORD SCRAMBLE

- |            |                 |
|------------|-----------------|
| 1. PAPER   | 6. NEWSPAPER    |
| 2. BOTTLES | 7. REUSE        |
| 3. RECYCLE | 8. PACKAGING    |
| 4. PLASTIC | 9. REDUCE       |
| 5. WASTE   | 10. ENVIRONMENT |

## PLOT IT OUT



**Remember to always  
Reduce, Reuse, and  
Recycle!**



[sarecycles.org](http://sarecycles.org)

[facebook.com/sasolidwaste](https://facebook.com/sasolidwaste)

[twitter.com/sasolidwaste](https://twitter.com/sasolidwaste)

**FPO**