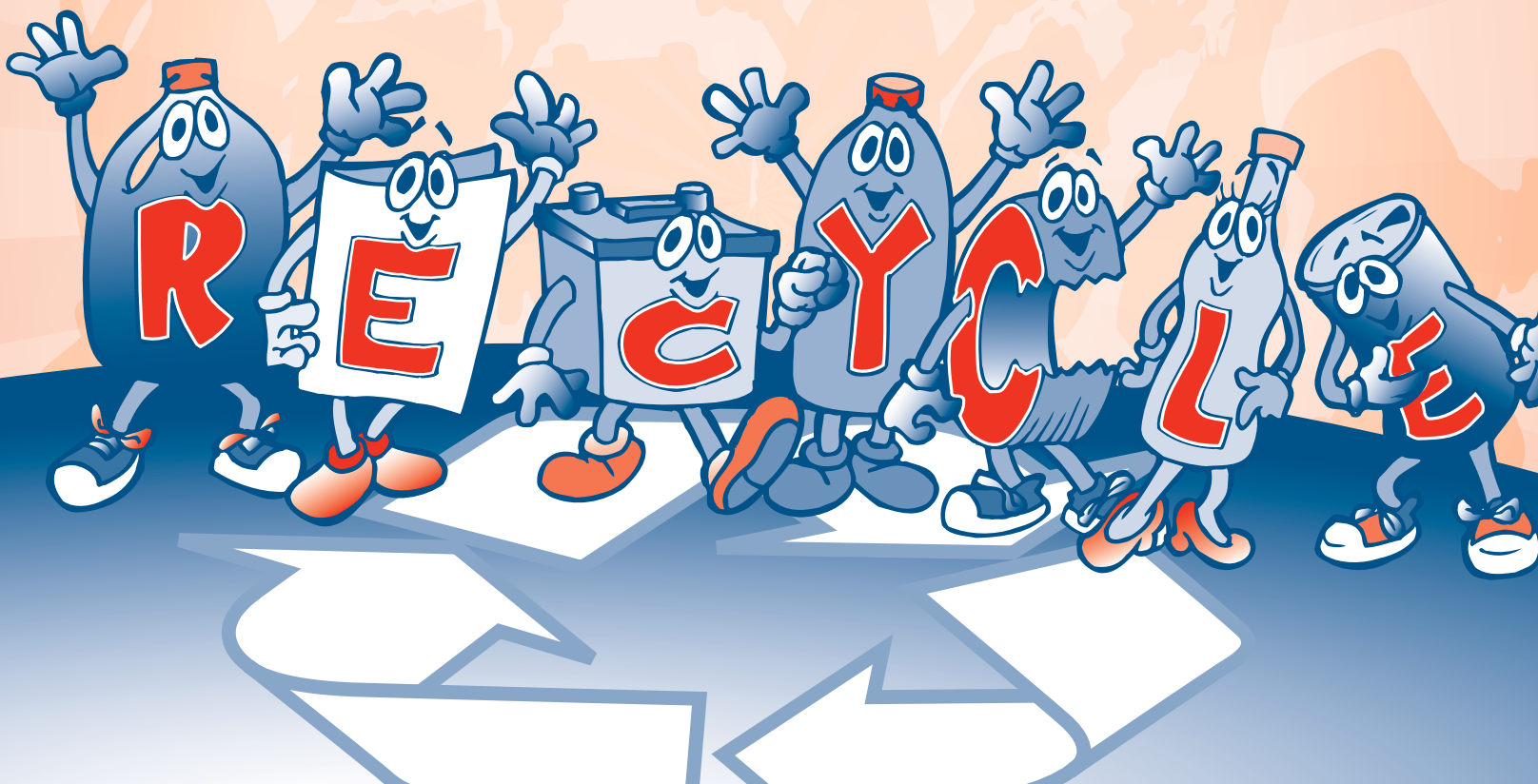
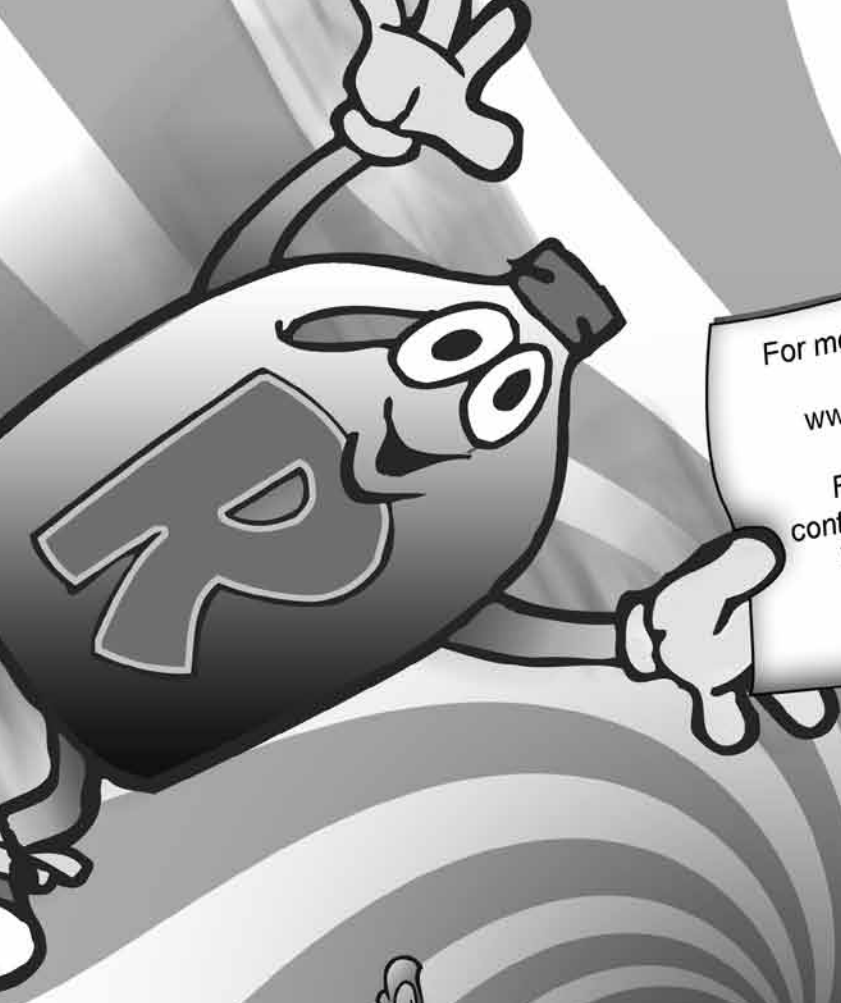


FREE!
(Remember to Recycle)

RECYCLING ACTIVITY BOOK

Protect Our Planet



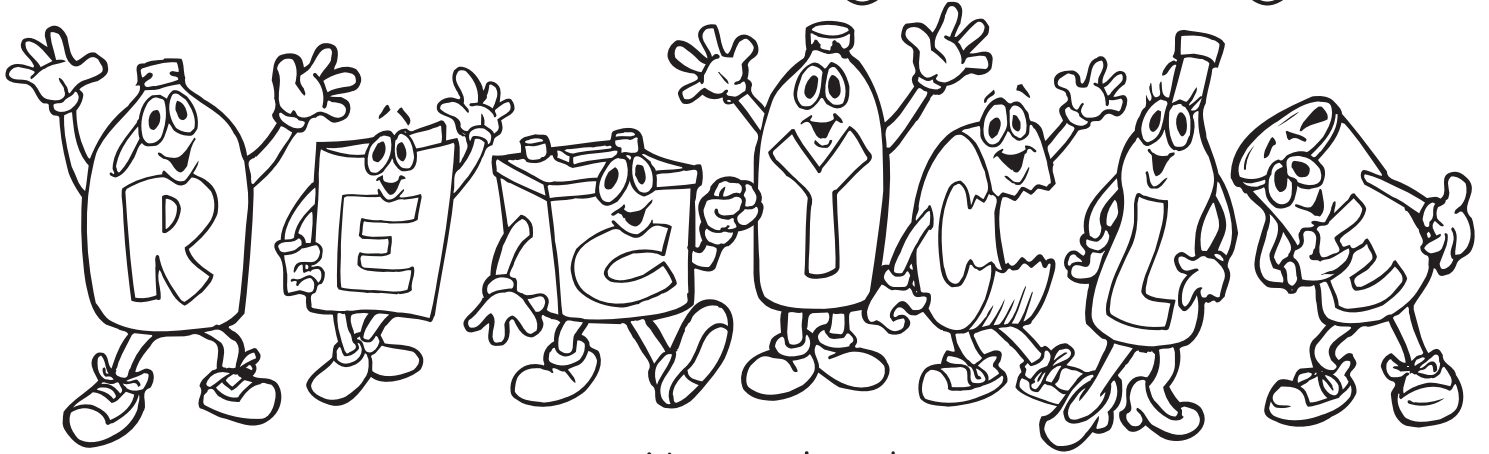


For more fun games and activities, visit
JUST FOR KIDS
www.pinellascounty.org/utilities/kids

For more information on recycling,
contact your city's solid waste department,
Pinellas County Utilities Solid Waste
Operations at (727) 464-7500,
or visit www.pinellascounty.org/recycle



Meet the Recycle Guys



Names, please!

Draw a line from each Recycle Guy to their name.

Sam Soda
Bottle

Glenda Glass

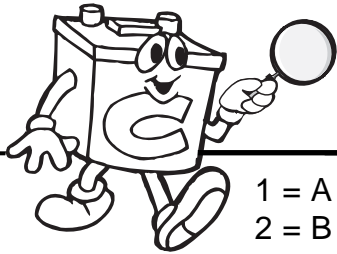
Bart Battery

Perry Paper

Molly Milk Jug

Toby Tire

Clayton Can



Use this number-letter code to find the Recycle Guys' secret message.

1 = A	5 = E	9 = I	13 = M	17 = Q	21 = U	25 = Y
2 = B	6 = F	10 = J	14 = N	18 = R	22 = V	26 = Z
3 = C	7 = G	11 = K	15 = O	19 = S	23 = W	
4 = D	8 = H	12 = L	16 = P	20 = T	24 = X	

18 5 3 25 3 12 5 20 15 4 1 25

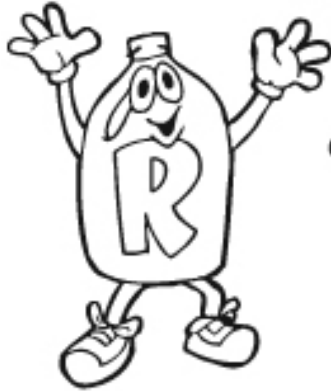
6 15 18 1

2 5 20 20 5 18 20 15 13 15 18 18 15 23

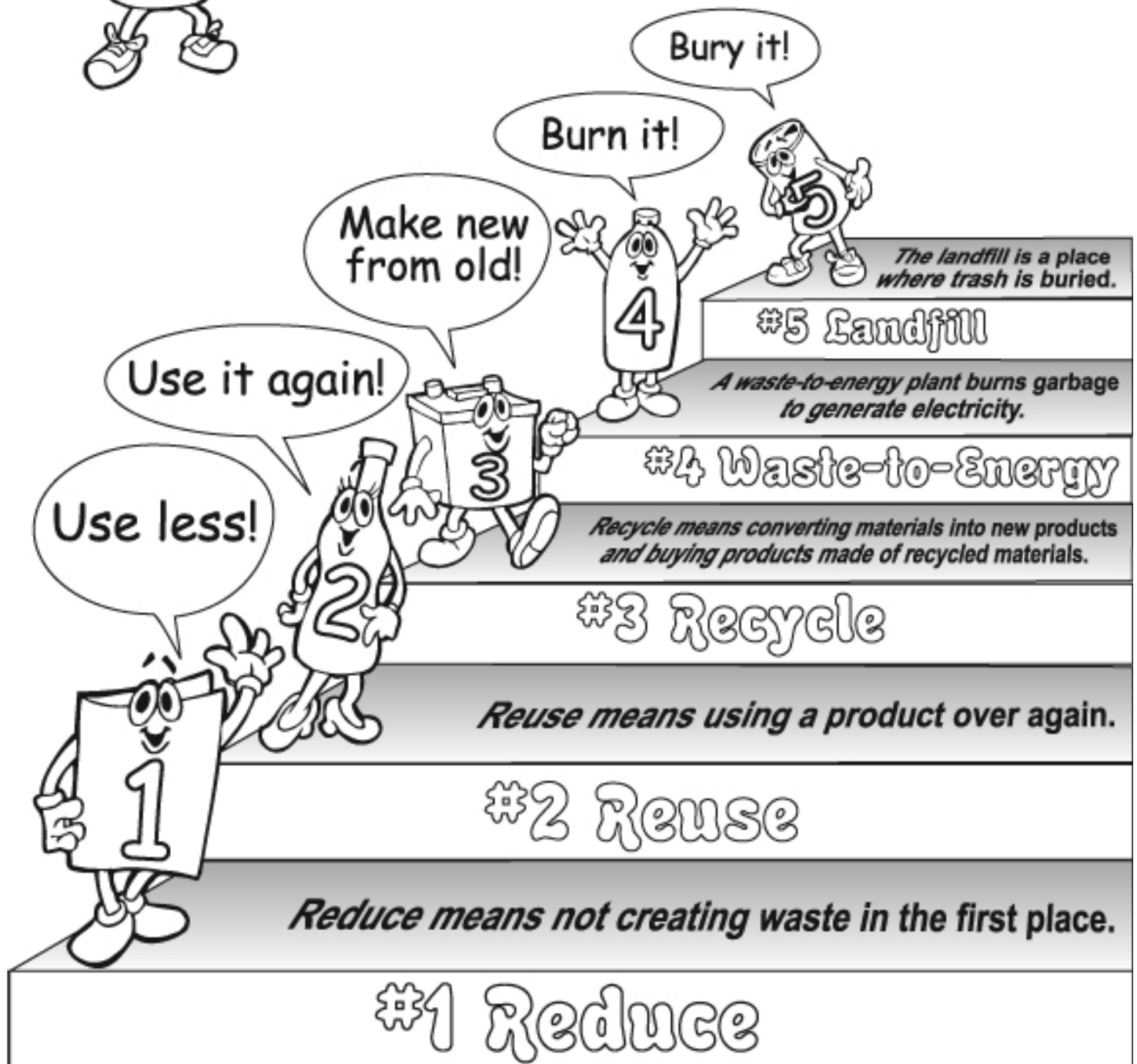


What happens to my trash?

Here are the 5 steps for good waste (trash) management.
The goal is to reduce, reuse, and recycle as much trash as possible,
then burn the remainder to generate electricity
so that a minimum is buried in the landfill.



Color the Recycle Guys and the names of the 5 steps.



Reduce Your Garbage

It's much better not to make waste in the first place. Reducing waste is easier than figuring out what to do with it once you've made it. Here are nine things you can do to reduce your garbage:

- Carry your lunch in a reusable bag or lunchbox instead of a paper bag.
- Use a glass or plastic cup instead of a paper cup.
- Mend and repair clothes and toys rather than buy new ones.
- Pick products that have little or no wrapping or packaging.
- Use cloth bags to carry things you buy, not paper or plastic bags.
- Buy food and other products in the largest size possible.
- Buy products in bottles you can refill.
- Store leftover food in reusable containers, not in plastic wrap or foil.
- Avoid buying "disposable" products. Buy things that will last a long time.



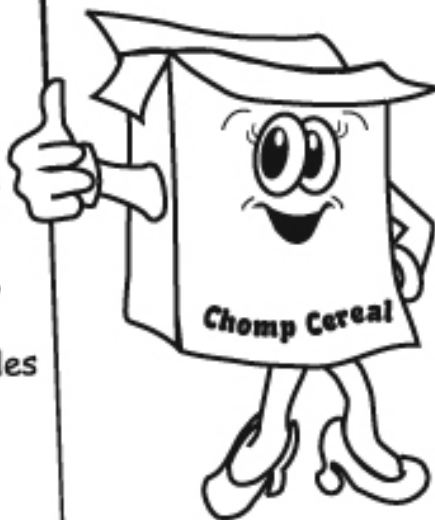
Which ones do you do already? Put a check by them. Circle one that you can start doing.

Reduce Waste - Shop Wisely

Write the name of the family with the GROCERY LIST that is better at reducing waste: _____.

Watago Family List

- Juice in large bottles
- Rechargeable batteries
- Cereal in large economy box
- Reusable plastic plates, cups and bowls
- Fresh fruits & vegetables
- Lunch box
- Thermos
- Cloth napkins
- Bars of soap



Wattsamata Family List

- Juice in disposable boxes
- Regular batteries
- Single-serving boxes of cereal
- Paper cups, plates and bowls
- Canned fruits & veggies
- Paper lunch bags
- Six pack of soda
- Paper napkins
- Soap in plastic dispensers

Reuse It, Don't Trash It!

Many items around your house can be reused by you or someone else.



Now it's
your turn. Write down
your ideas.

How can I reuse?

1. Empty soda bottle











2. Sweater that's too small

3. Magazine I've finished reading

4. Scraps of ribbon or yarn

5. Empty coffee can

6. Pair of in-line skates I've outgrown

-  Donate reusable toys, books and clothes to charity.
-  Pass on clothes to younger friends or family.
-  Wrap gifts in reusable gift bags.
-  Reuse gift bows, gift bags and wrapping paper.
-  Exchange toys, games and books with friends.
-  Use washable napkins instead of paper.
-  Save used items such as buttons, fabric, yarn, beads and colored paper for craft projects.
-  Turn old cans or jars into storage containers for school and art supplies.
-  Write on BOTH sides of the paper.
-  Have a garage sale.












Reuse and Recycle



Over and over
and over and over
and over again!

Color these new uses for everyday items.

<p>Item It's an everyday item you can find around your home.</p>	<p>Reuse You can use again in some other way.</p>	<p>Recycle It gets manufactured into something new.</p>
 <p>When you're finished reading it,</p>	 <p>reuse it as wrapping paper.</p>	 <p>The newspaper you recycle can be made into a cereal box.</p>
 <p>When you're finished with the pickles,</p>	 <p>use the jar to hold drawing supplies.</p>	 <p>The jar you recycle can be used to make new jars.</p>
 <p>When the milk bottle is empty,</p>	 <p>cut off the top and use for a planter.</p>	 <p>The plastic bottle you recycle can become part of a picnic table.</p>

Create a Critter



Craft
Activity



Animal



Person



Bug



Creature



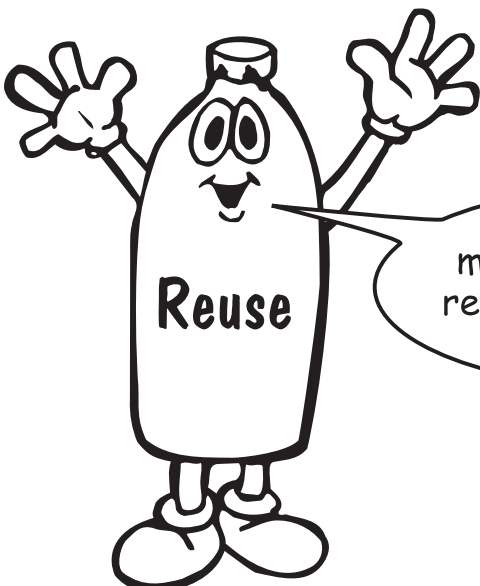
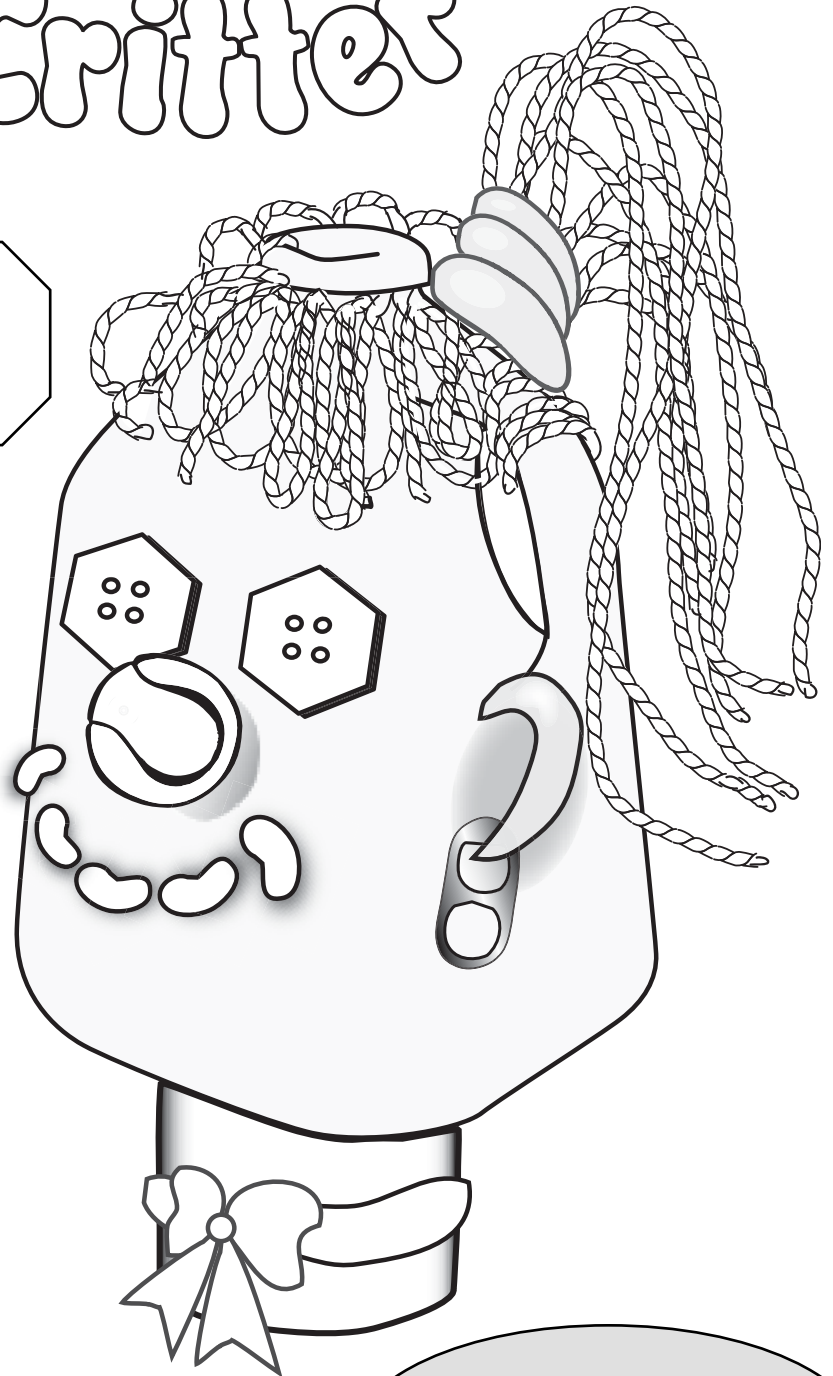
Building



Landscape



Whatever comes
to mind

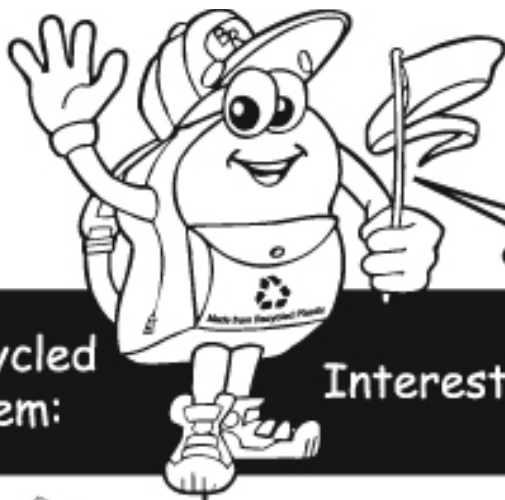


Gather some materials that you can reuse. Let your rubbish be your guide.

Art and Craft Supplies:
tape, glue, scissors,
markers, paint

Ideas for Materials:
plastic bottles, milk jugs, steel cans,
yarn, string, rope, ribbon, fabric scraps,
colored paper scraps, greeting cards,
buttons, popsicle sticks, pipe cleaners,
glitter, paper towel rolls, wrapping
paper, stickers, stamps,
magazines

Make your own critter. Use lots of imagination!

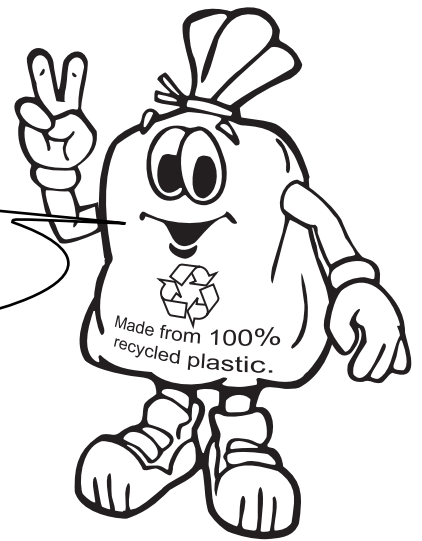


Recycle

You can help!

Recycled Item:	Interesting Facts:	It is Recycled Into:
	<p>Two weeks of daily NEWSPAPERS equals one full-grown tree.</p>	<p>writing paper, newspaper, cardboard boxes, cereal boxes, toilet paper, tissue paper, paper towels</p>
	<p>Americans use 2.5 million PLASTIC bottles every hour. 40 recycled soda bottles make enough fiberfill to stuff a sleeping bag.</p>	<p>fiberfill, tote bags, clothing, containers, carpet, strapping, fleece wear, luggage, bottles, pipe, buckets, benches, plastic lumber, picnic tables</p>
	<p>You can save enough energy to operate a television for six hours by recycling just two ALUMINUM cans.</p>	<p>cars, soda cans, aluminum foil, construction products, lawn chairs</p>
	<p>GLASS bottles and jars can be recycled over and over again. There is no limit. In the landfill, glass takes a million years to break down.</p>	<p>glass bottles, jars, tile, road paving, fiberglass insulation, marbles</p>
	<p>Some BATTERIES contain heavy metals such as mercury, cadmium, and lead which can pollute our air, ground and surface water if thrown out in the regular garbage.</p>	<p>Recovered cadmium can be made into new rechargeable batteries. Nickel and iron can be recycled into stainless steel products like pots and pans.</p>
	<p>STEEL is the most recycled material in the U.S. Through recycling each year, the steel industry saves enough energy to power 18 million homes - 1/5th of the homes in the U.S.</p>	<p>food cans, cars & trucks, buildings, bridges, tools, refrigerators & other appliances, almost anything made of steel</p>

Buy Recycled



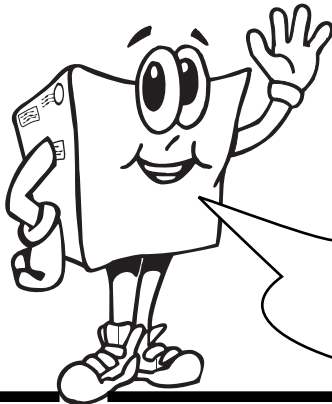
Use the WORD BANK on the left to fill in the blanks below with my favorite "buy recycled products" words.

WORD BANK

bags
bottles
home
made
product
recycling



Close the _____ loop. Buy items that are _____ from recycled materials. How can you tell if a product is made from recycled materials? Read the _____ labels. Look at these products around your _____: paper towels, napkins, greeting cards, soda _____, toilet paper, cereal/cookie boxes, egg cartons, facial tissues, trash _____, pencils, writing paper. Are they made of recycled materials?

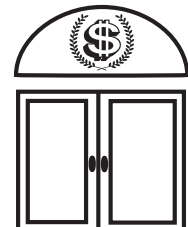


Word Search

Find my favorite WORD BANK words going up, down, forward, backward or diagonal in the puzzle below.

WORD BANK

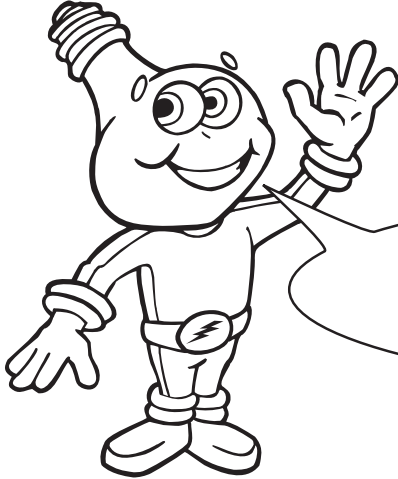
RECYCLE REUSE
REDUCE BURN
ALUMINUM ENERGY
LANDFILL GLASS
CONSERVE PAPER
BATTERY SAVE



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

Waste-to-Energy Plant

Fire Power!



Say what?
Waste-to-Energy Plant? How's that work?
Get ready for "sizzling" answers
to some "burning" questions!

Question: How much garbage (waste, trash) do Pinellas County residents throw out?

Answer: Each of us generates nearly 5 pounds of garbage per day at home. That's over 1 million tons a year.

Question: Where does the garbage go?

Answer: To the Waste-to-Energy (WTE) Plant (the incinerator - FIRE POWER!)

Question: What happens to the garbage at the Waste-to-Energy Plant?

Answer:



Garbage trucks dump all Pinellas County trash on the tipping floor at the Waste-to-Energy Plant.



Giant claws grab it and move it to the boilers.



Giant boilers burn it at 1,500 degrees Fahrenheit (hot, hot, HOT!)



Metals that don't burn (such as steel, brass and copper) are separated from the ash and sold to recyclers.



The remaining ash is trucked to the landfill to cover waste.

Question: How much of the trash ends up as leftover ash?

Answer: Most of the trash is converted to energy when it is burned (WASTE-TO-ENERGY!). The volume of trash is reduced by 90%. Only 10% ends up as leftover ash.

Question: Do we make use of the fire's energy?

Answer: Yes! It's turned into electricity that is sold to a local power company. It provides power for up to 45,000 homes each day.

Question: Is that smoke I see coming from the WTE Plant?

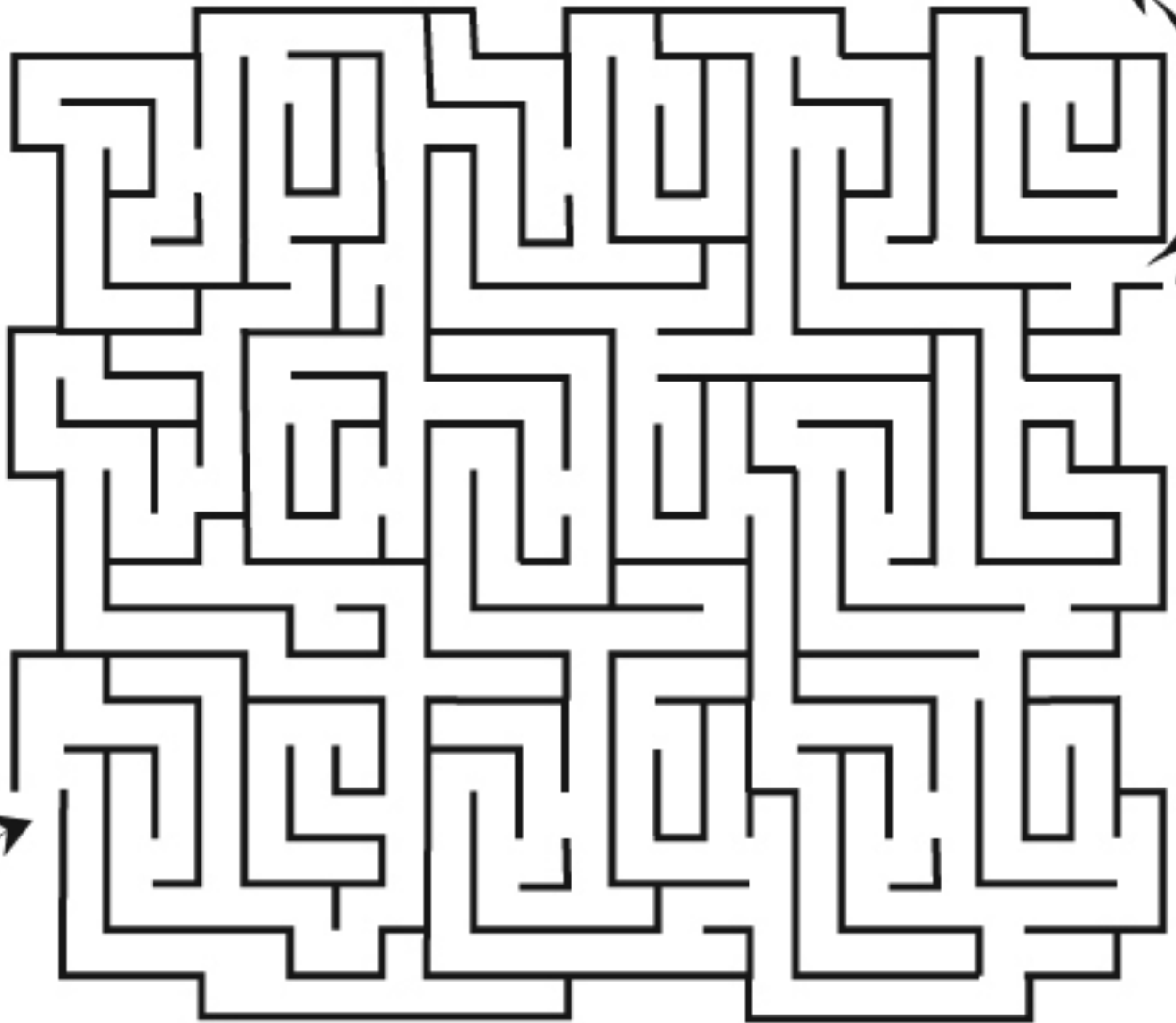
Answer: No. It's actually steam evaporating from the water in the cooling towers. The air released by the WTE Plant is always monitored, filtered and treated to make sure it is safe for the environment.



Garbage to Claw Maze

Take the garbage truck
to the tipping floor
at the Waste-to-Energy Plant.

Metal Claw above
Tipping Floor



Garbage Truck

Did you know
the claw can scoop up 6 tons of garbage
at once? That's as much as the weight
of two full sized pickup trucks!

Landfill



The landfill is the end of the line for our garbage, waste or trash. Whatever doesn't get recycled, burned or disposed of in some other way gets buried in the landfill.

Reasons to recycle and keep trash out of the landfill:

- * Save available landfill space.
1 2 3 4 5
- * Conserve natural resources.
6 7 8 9
- * Save energy.
- * Reduce pollution.

Use the secret letter-number code on the left. We need to reduce, reuse and recycle so we can:

5 9 8 7 2 6 7
the
5 3 1 4 2 7 !

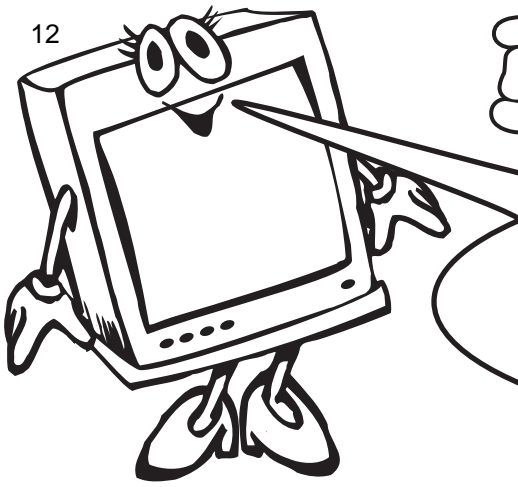
Around 15% of the waste we receive ends up in our landfill.

We use our landfill only to manage waste that we can neither recycle nor burn. Types of waste we send to the landfill include construction debris, non-burnable wastes, oversized materials and other special wastes. We also use the landfill as a backup when the Waste-to-Energy (WTE) plant's boilers are not working or the WTE plant is unable to process all incoming solid waste. To extend the life of the landfill, please remember to reduce, reuse and recycle.

Walls of clay on the bottom and sides of the landfill create a "bathtub" to keep any leachate (garbage juice) from draining out of the landfill. Ash from the WTE plant covers the garbage to control bad odors and litter.

(No one would EVER want to bathe in the landfill bathtub or drink this garbage juice!)





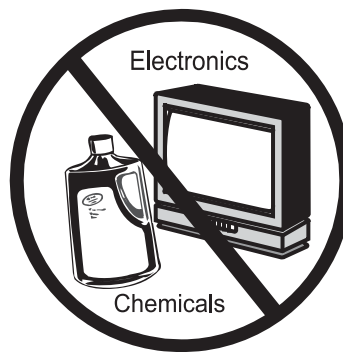
Don't Trash That!

There are some types of waste that should never be put in the trash can. These wastes may be dangerous, or they may require a special type of disposal. They should be kept out of the landfill.

Household Electronics and Chemicals

DANGER

Contain harmful chemicals that can cause fires or explosions in the garbage truck or pollute the environment if they leak or spill.



SAFETY

Should be delivered to the Household Electronics and Chemical Collection Center (HEC3) or one of the Mobile Collection events.

Below is a list of items you should not throw in the trash. Put a "C" in front of items known as household chemicals. Put an "E" in front of items known as household electronics.

- C Antifreeze
- Bug spray
- E Camcorder
- Cell phones
- Chlorine bleach
- Computers
- DVD players
- Fax machines
- Fluorescent bulbs
- Game Boy player
- Household batteries
- iPod
- Microwave ovens
- Model glue

- Nail polish & polish remover
- Paint
- Pesticides
- Plant fertilizers
- Printers
- Radios
- Shoe polish
- Stereos
- Swimming pool chemicals
- Telephones
- Tub & tile cleaner
- Turpentine
- TV's
- VCR's

Don't Trash Us!



Used Motor Oil

Used oil can be recycled and processed to be used again as new oil or as an industrial fuel. There are over 60 locations in Pinellas County that will accept your family's used motor oil for free and make sure that it gets recycled.



Tires

It is illegal to put tires in a landfill. Tires need to be delivered separately so they can be burned in the Waste-to-Energy Plant. Most stores that sell tires will take your old tires away.



Leaves and Branches

Don't put yard waste in the trash. Recycle yard waste (leaves and branches) into mulch, or compost it. Leaves may be reused by placing them around bushes as mulch. Grass clippings can be left on the lawn. They put nutrients back into the yard and retain water. Many cities have separate yard waste pickups, or they may have drop-off brush sites. Discarded yard waste is ground up and processed into mulch. Your family can pick up free mulch at several sites around the county.

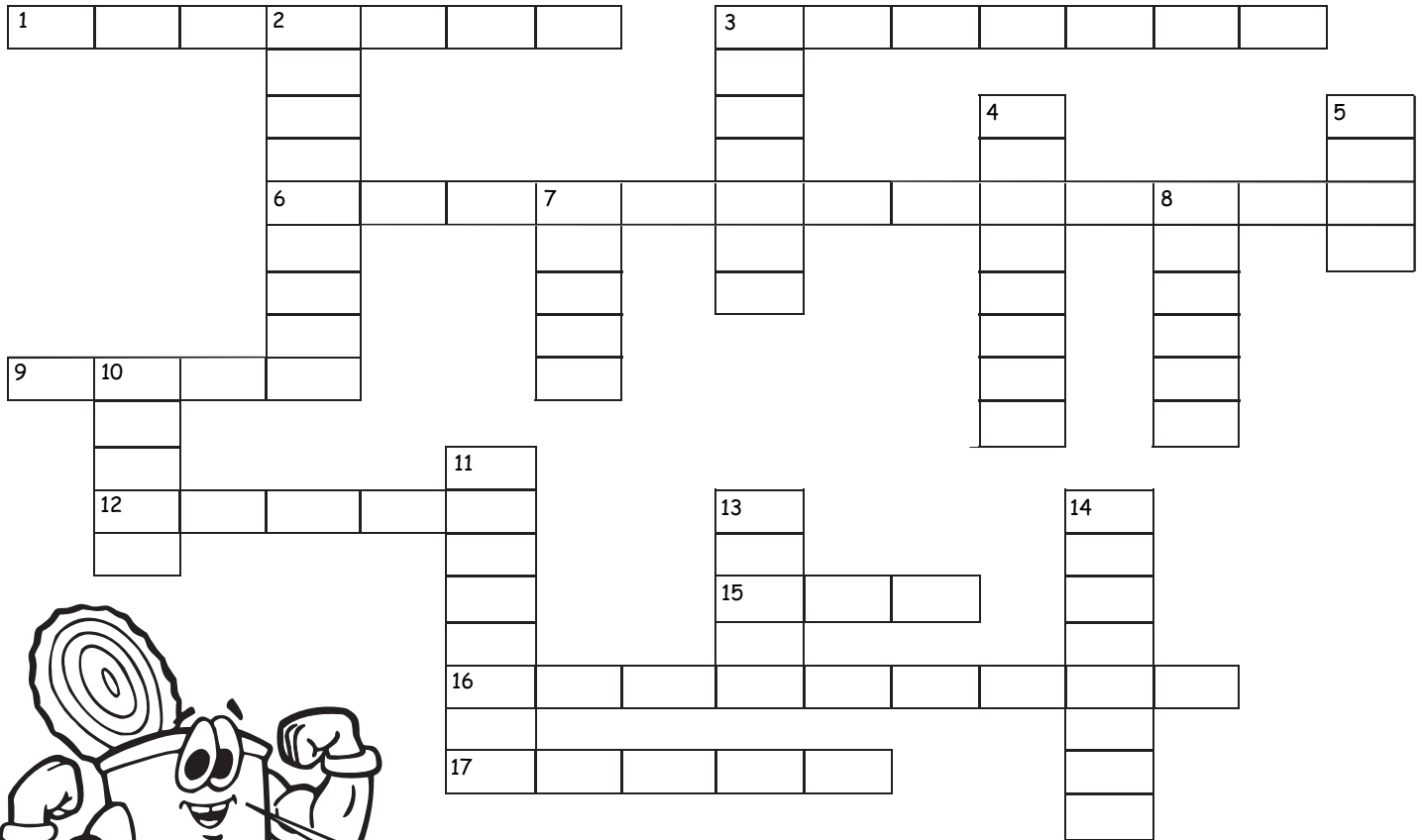
Draw a line from the sentence to the correct word.

- | | |
|---|------------|
| 1. It is illegal to put <u>these</u> in the landfill. | Free |
| 2. This is another way to say <u>leaves and branches</u> . | Tires |
| 3. This is the <u>cost</u> for families to drop off used motor oil at a recycling location. | Mulch |
| 4. Yard waste is processed into <u>this</u> . | Yard waste |

Fill in the missing letters with the letter "A" or "E".

S__V__ V__LU__BL__ L__NDFILL SP__C__.

Crossword Puzzle



Test your Trash IQ!

ACROSS

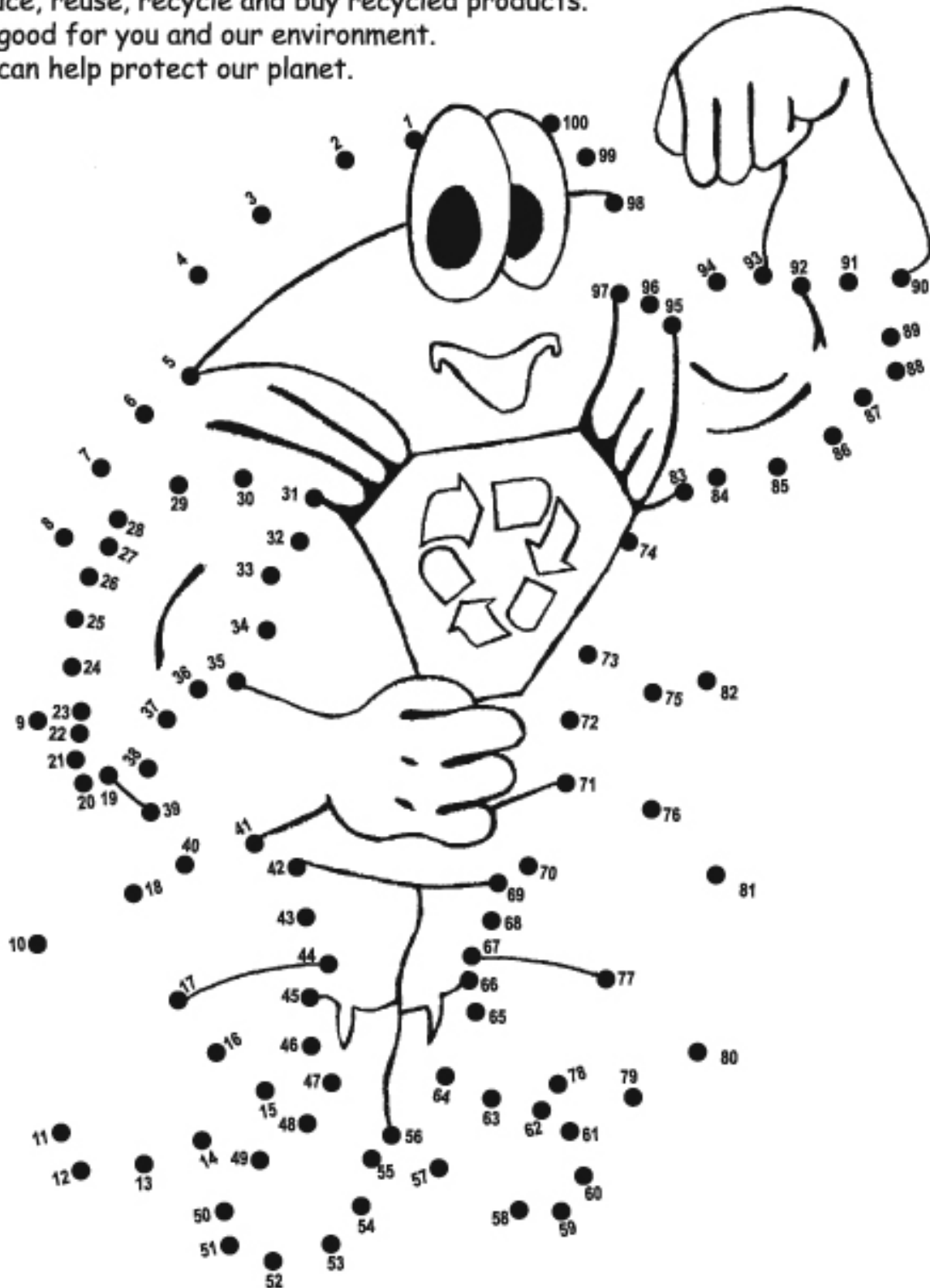
- It's important to _____ plastic, aluminum, newspaper, and glass. (page 7)
- Waste reduction and recycling help to _____ our planet. (page 15)
- We can incinerate garbage in the _____ - _____ plant. (page 9)
- When you recycle paper, you can save a _____ . (page 7)
- Aluminum and _____ cans can be recycled. (page 7)
- The leftover material after garbage is incinerated is called _____. (page 9)
- After you read the _____, you can reuse it for wrapping paper or recycle it. (page 5)
- Yard waste can be recycled into _____ or compost. (page 13)

DOWN

- Leaves and branches are types of _____. (page 13)
- When shopping, use cloth bags instead of _____ bags to reduce waste. (page 3)
- Garbage can be buried in the _____. This is the last choice for disposal. (page 11)
- It's good to donate your old _____ so someone else can play with them. (page 4)
- Garbage, waste and _____ are all names for things we throw away. (page 11)
- Buying items with less packaging is one way to _____ waste. (page 3)
- You can _____ gift bows, gift bags and wrapping paper. (page 4)
- Soda cans are usually made from _____ and can be recycled. (page 7)
- _____ bottles and jars can be recycled over and over again. (page 7)
- Recycling helps to _____ natural resources. (page 11)

You Can Be a Recycling Superhero!

Reduce, reuse, recycle and buy recycled products.
It's good for you and our environment.
You can help protect our planet.



Answer Key

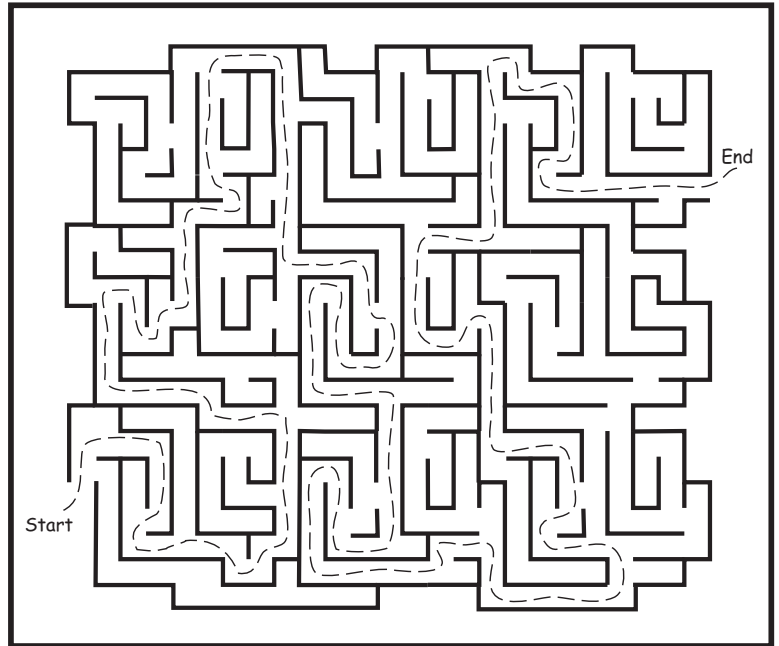
Page 1: RECYCLE TODAY FOR A BETTER TOMORROW!

Page 3: Watago Family

Page 8: BUY RECYCLED: recycling, made, product, home, bottles, bags

Page 10: GARBAGE TO CLAW MAZE

WORD SEARCH:



Page 11: Protect the Planet

Page 12:

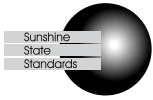
- | | |
|-----------------------------------|---|
| <u> C </u> Antifreeze | <u> C </u> Nail polish & polish remover |
| <u> C </u> Bug spray | <u> C </u> Paint |
| <u> E </u> Camcorders | <u> C </u> Pesticides |
| <u> E </u> Cell phones | <u> C </u> Plant fertilizers |
| <u> C </u> Chlorine bleach | <u> E </u> Printers |
| <u> E </u> Computers | <u> E </u> Radios |
| <u> E </u> DVD players | <u> C </u> Shoe polish |
| <u> E </u> Fax machines | <u> E </u> Stereos |
| <u> C </u> Fluorescent bulbs | <u> C </u> Swimming pool chemicals |
| <u> E </u> Game Boy player | <u> E </u> Telephones |
| <u>C or E</u> Household batteries | <u> C </u> Tub & tile cleaner |
| <u> E </u> iPod | <u> C </u> Turpentine |
| <u> E </u> Microwave ovens | <u> E </u> TV's |
| <u> C </u> Model glue | <u> E </u> VCR's |

Page 13: 1. Tires 2. Yard waste 3. Free 4. Mulch

SAVE VALUABLE LANDFILL SPACE

Page 14: CROSSWORD PUZZLE

Across:	1. recycle	3. protect	6. wastetoenergy	9. tree	12. steel
	15. ash	16. newspaper	17. mulch		
Down:	2. yardwaste	3. plastic	4. landfill	5. toys	7. trash
	8. reduce	10. reuse	11. aluminum	13. glass	14. conserve



The activities in this book are keyed to the Sunshine State Standards.

Suggested Grade Levels:

- Grades 3-5 should be able to read much of the text and do many of the activities independently.
- Grades 6-8 should be able to read all of the text and do the activities independently.
- Younger children can enjoy many parts of the book such as coloring and connecting the dots.

Reading / Language Arts

Vocabulary Development: *The student uses multiple strategies to develop grade-appropriate vocabulary.*

- LA.3-8.1.6.1 The student uses new vocabulary that is introduced and taught directly.
- LA.3-8.1.6.3 The student uses context clues to determine meanings of unfamiliar words.
- LA.3-8.1.6.5 The student relates new vocabulary to familiar words.

Reading Comprehension: *The student uses a variety of strategies to comprehend grade level text.*

- LA.3-8.1.7.1 The student uses background knowledge to make predictions.

Nonfiction: *The student identifies, analyzes, and applies knowledge of the elements of a variety of informational texts.*

- LA.3-8.2.2.1 The student analyzes text features.
- LA.3-8.2.2.2 The student uses information from the text to answer questions.

Communication - Listening and Speaking (if speaker is present when book is used):

- LA.3-8.5.2.1 The student will listen to information presented orally and show an understanding of key points
- LA.4.5.2.3 The student will listen attentively to speakers and take notes as needed to ensure accuracy of information.
- LA.4.5.2.4 The student will ask questions of speakers.

Informational Text: *The student comprehends informational text that is part of our day to day experiences.*

- LA.3-8.6.1.1 The student will read informational text and organize information to perform a task.

Research Process: *The student uses a systematic process for collection, processing and presentation of information.*

- LA.3.6.2.1 The student determines information needed for a search by identifying key words.

Science

Earth and Space Science

Big Idea 6: Earth Structures

- SC.4.E.6.5 Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.
- SC.7.E.6.6 Identify the impact humans have had on the Earth.

Nature of Science

Big Idea 4: Science and Society

- SC.8.N.4.2 Explain how political, social and economic concerns can affect science, and vice versa.

Big Idea 9: Changes in Matter

- SC.8.P.9.3 Investigate and describe how temperature influences chemical changes.

Physical Science

Big Idea 10: Forms of energy (Waste-to-Energy facility)

- SC.3-5.P.10.1 Identify some basic forms of energy.
- SC.3-5.P.10.2 Recognize that energy has the ability to cause motion or create change.

Big Idea 11: Energy Transfer and Transformations

- SC.7.P.11.1 Recognize that adding heat to or removing heat from a system may result in a temperature change.

Life Science

Big Idea 17: Interdependence

- SC.4.L.17.4 Recognize ways that plants and animals, including humans, can impact the environment.

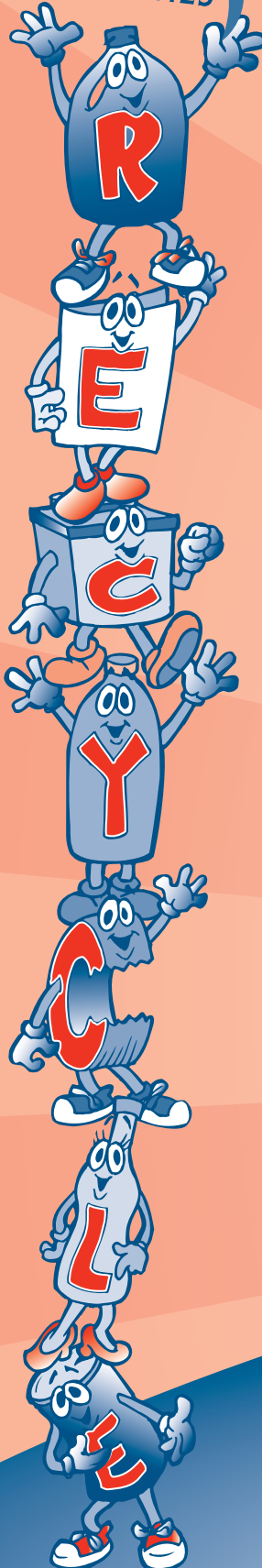
Social Studies

Geography, Standard 5: Understand how human actions can impact the environment.

- SS.8.G.5.1 Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.

Pinellas County

UTILITIES



 Entire booklet printed on recycled paper 8/10

Funding for this booklet was provided by Pinellas County Utilities Solid Waste Operations. Produced in cooperation with Pinellas County Communications. 25,000 copies were printed at a cost of \$6,927, or \$0.277 each. Pinellas County complies with the Americans with Disabilities Act. To obtain accessible formats of the document, please call (727) 464-4600 / TDD (727) 464-4431.



Activities in this book are keyed to the Florida Sunshine State Standards.