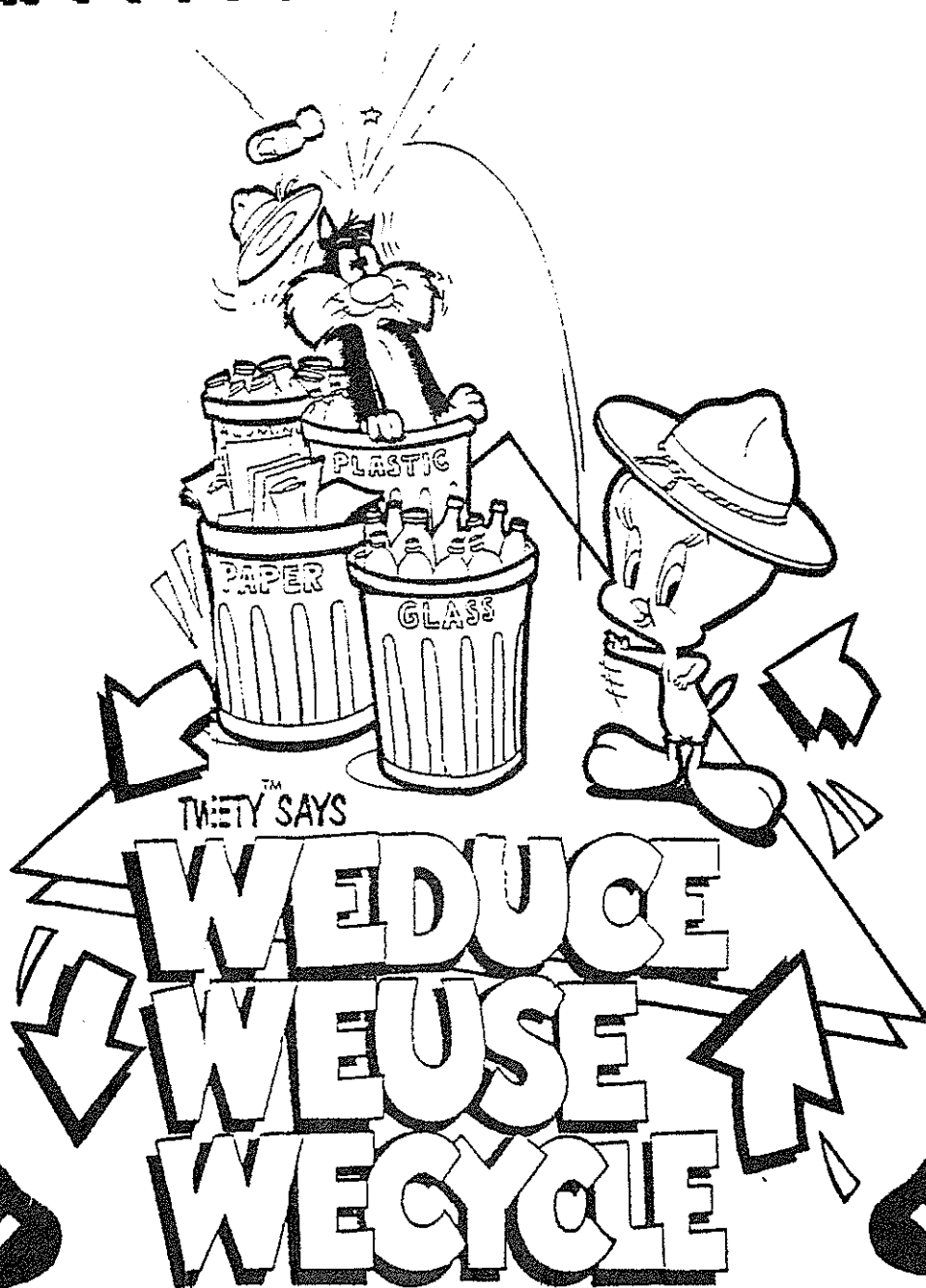


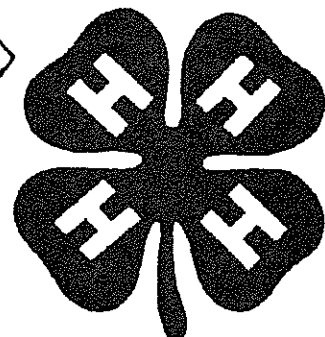
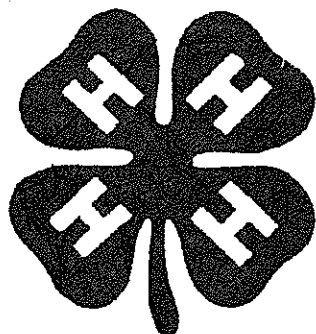
RECYCLING

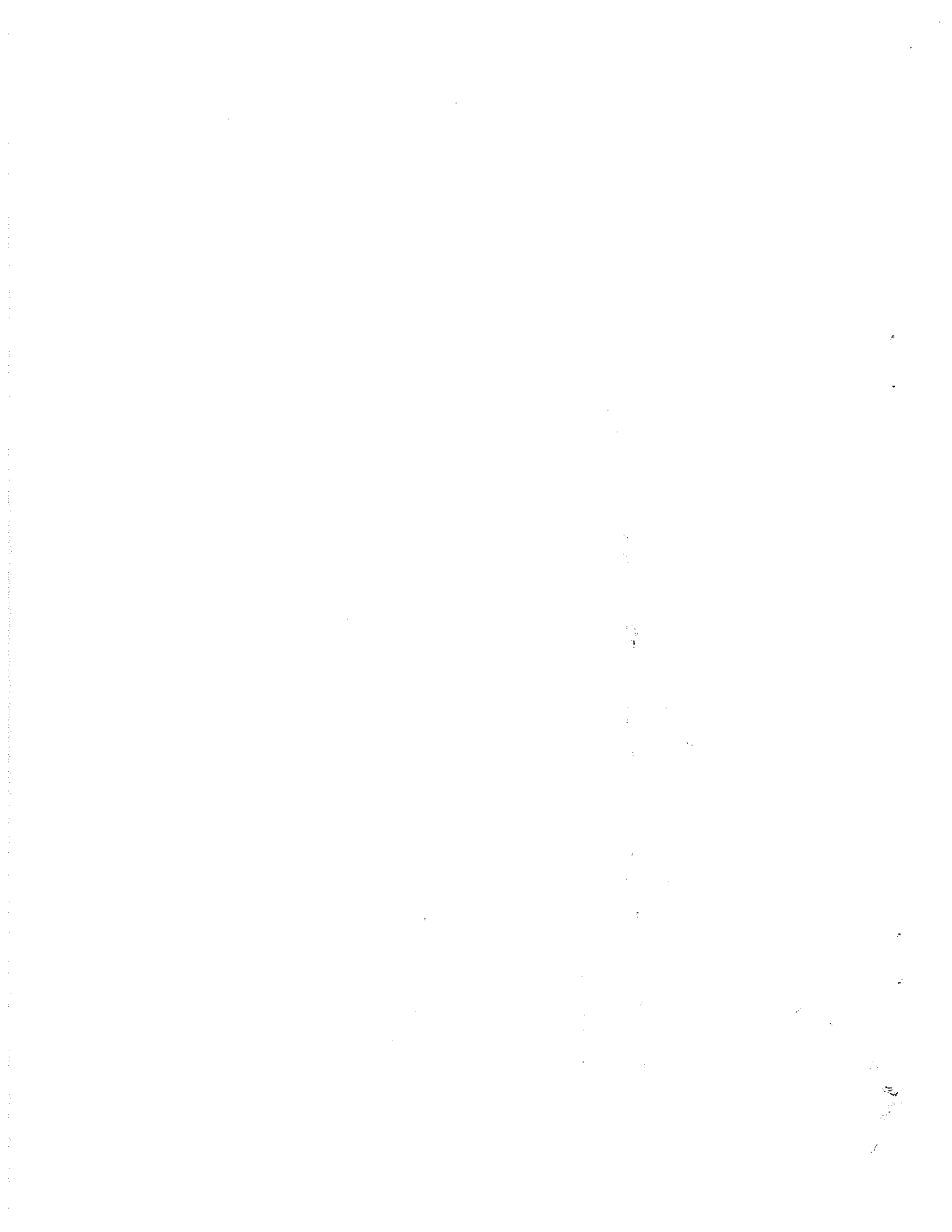
Vermillion County 4-H



WE DUCE
WE USE
WE CYCLE

Level A





WHAT TO EXHIBIT:

1. Take an object and remake it into something useful or decorative. (Other than what it was originally used for.)
2. Attach to your exhibit:
 - *name of project created
 - *item(s) that were recycled
3. Turn the Recycling Record Sheet in with your exhibit.

In the 4-H Recycling project, you'll learn to redefine waste by finding alternative uses for items. Recycling projects can be thought of as either OLD RECYCLING or MODERN DAY RECYCLING. Examples might include:

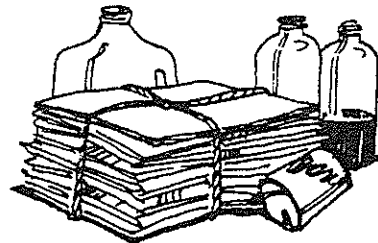
- *quilts from old clothing
- *rag rugs
- *feed sack dish towels
- *clothing out of curtains
- *curtains out of old sheets
- *milk crate shelving
- *metal art
- *barn siding picture frames
- *2-liter bottle bird feeders
- *candleholders from jars, etc.
- *toilet paper holder from metal coffee can
- *give old jeans new life by making:
 - decoration
 - blanket
 - purse, etc.
- *shadow box from medicine cabinet
- *wind chimes from silverware, etc.

BE CREATIVE!!! Exhibits will be judged based on originality, creativity, and neatness.

Check around your house for items that are about to be discarded. They might include, but are not limited to:

newspapers	magazines
egg cartons	aluminum foil
cardboard	fabrics
old clothing	buttons
foam meat trays	plastic bottles
string	coffee cans
grocery sacks	tin cans
puzzle pieces	crayons

Ask yourself, "What can I make out of this?" Be creative and the world will be a better place. Americans today have a keen sense of environmental issues. This 4-H project is designed to make you more aware of how things we might throw away daily could be turned into useful or decorative items for your personal use or home use.

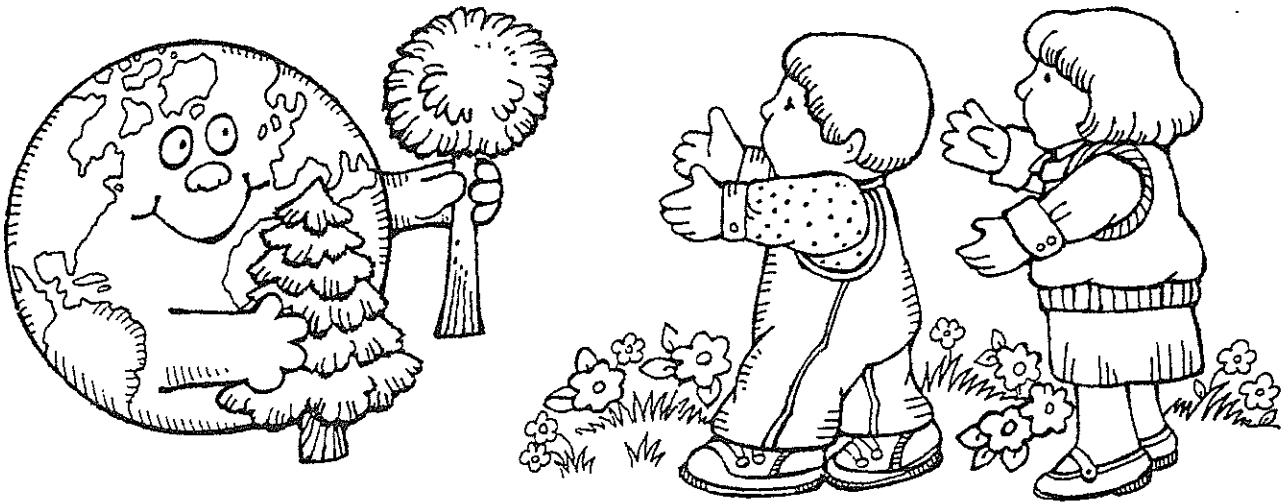


Your parents and grandparents have probably heard the saying:

"USE IT UP, WEAR IT OUT, MAKE IT DO OR DO WITHOUT."

When items are thrown away, are they really used up and worn out? You can probably find a way to give it new life!

YOU CAN MAKE A DIFFERENCE!!!



Once upon a time, there was a beautiful planet. The planet's name was Earth. Earth loved the people who lived on her so much, she gave them many wonderful gifts. She gave them oil to heat their homes in winter, trees to make paper and books, and iron to make swing sets and jungle gyms- in fact, almost *everything* that the people had started out as one of Earth's gifts.

Earth gave and gave, and the people took and took. Whatever the people asked for, Earth gave to them. And the people made many useful and fun things out of her gifts.

Then one day, when the people went to Earth to ask for more gifts, she said, "I have given you so much already, I don't have much left to give." The people then realized that Earth's gifts would soon be completely gone!

"But what about our children?" the people asked Earth. "And what about their children? They will want to have oil to keep them warm in winter, and trees to make books, and iron for swing sets, too!"

"I want them to have these things," said Earth, "but I can't just give and give anymore. You will have to do some giving, too."

"What do you mean?" asked the people. "We'll do anything!"

"First," said Earth, "you must promise never to waste any of my gifts."

"We promise," said the people.

"Second, you must start using the things you have made from my gifts over and over again!"

"How?" asked the people.

"Well, just think for a minute," said Earth. "What do you have that can be used more than once?"

One of the littlest people said in a very loud voice, "Once, I took an empty milk carton out of the trash can and made it into a birdhouse. Is that what you mean?"

"Precisely, said Earth. "If everyone would try to find ways to reuse things that usually just end up in the trash, then there will be enough good things for everyone in the future."

The people were happy to know they could start right then to help save Earth's gifts for the future! They put their heads together and came up with a plan. They called it "Project:Recycle" because all their ideas were ways to use Earth's gifts over and over instead of just using them once, and then throwing them away!

Earth was pleased, and she asked the people to put their ideas in motion and make a 4-H project from recycled materials to be exhibited at the county fair.

There are many more ways you can recycle the things in your home. Try to come up with your ideas of your own, teach others, and you, too, will play a valuable part in "Project: Recycle!"



RECYCLING

Recycling. It's been in the news a lot. We've been told that it is the responsible thing to do, but why is it?

Recycling conserves natural resources, saves energy, and reduces the amount of trash going to landfills. Conserving our natural resources doesn't mean not using them, it means using them wisely and sparingly. Recycling involves collecting reusable materials that have been thrown away, processing, and distributing them for reuse. In most cases, it takes less energy to prepare materials for reuse than to produce new items. Natural resources, such as trees, water, metal ores, and oil, are conserved through recycling. Materials made from these natural resources are recycled and used again. Almost everything can be recycled in some way. Major groupings include paper, aluminum, glass, organic materials, and plastics.

PAPER

Paper is made from wood pulp that comes from trees. It takes pulp from about 3,672 trees to produce the Sunday edition of the Indianapolis Star. Newspapers, white office paper, computer paper, and cardboard boxes can be processed for reuse. High-grade office paper is especially in demand. On the other hand, it is harder to recycle magazines due to a treatment that makes the pages glossy. Recycled paper is not suitable to all purposes where the strength of the paper is important, such as grocery bags. Long fibers, like these found in wood pulp, give strength but each time paper goes through the recycling process the fibers get shorter.

DID YOU KNOW? Americans throw away the equivalent of more than 30 million trees in newsprint each year.



ALUMINUM

Aluminum is another easily recycle material. When a company recycles an aluminum can, it saves 95% of the energy it would take to produce a new one from bauxite ore. Other forms of aluminum that can be recycled are found in foil, meat cans, pudding containers, pie plates, and TV dinner trays. It is estimated that the average time it takes for an aluminum can to be collected, recycled, and back on the store shelves is 6 weeks!

GLASS

The natural resources used in production of glass are sand, lime, and soda ash. Making glass from sand requires a great amount of energy, but recycling reduces the energy requirement by 32%. Glass is usually separated into three main colors: clear, green, and brown. Separation is required because reactions between chemicals in a mixture of colored glass leads to bubbles in the finished container, making the glass less stress tolerable. Glass turned in to be recycled is ground into "cullet," melted, and made into new containers.

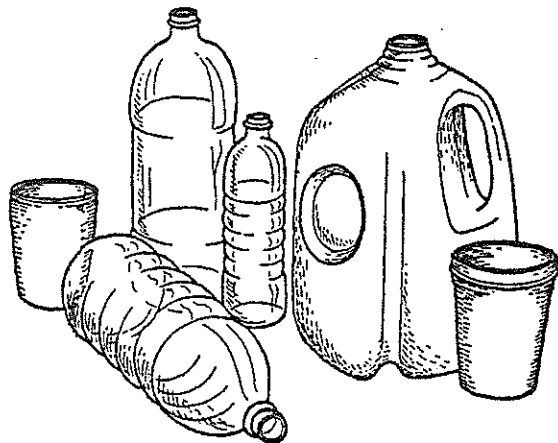
Aluminum and glass are two materials that are 100% recoverable. This means that the total amount of material going into the recycling process is equal to the total amount of material that is produced.

ORGANIC WASTE

Landfills are 18-25% organic in composition. Organic materials are things that were alive once, such as plants and animals. Some of these materials like leaves, grass clippings, and vegetable scraps, can be recycled through composting. Composting involves collecting yard waste into a pile in one corner of your yard. By turning it with a rake once in a while, you will encourage microorganisms and other tiny animals in the ground to break down the plant fibers and turn it into soil again. Once the material has been composted, it can be used around flowers, trees, and in your garden for mulch.

PLASTICS

Aluminum, glass, and plastics are not biodegradable, which means that microorganisms cannot break them down. Much research is being done on how to recycle plastics, but we still have a long way to go before they can be recycled as easily as glass and aluminum. A few types, like 2-liter bottles and plastic milk jugs, are acceptable for recycling. The main disadvantages to recycling plastics is that there are so many different kinds. In many cases, there are several layers of different types of plastic in one container! Plastics also have the disadvantage, unlike other recyclable materials, in that they cannot be processed for the use they were originally intended. In other words, a plastic 2-liter bottle cannot be recycled to make another plastic 2-liter bottle. However, they can be recycled into such things as plastic lumber and carpet backing.



DID YOU KNOW?

Every year we make enough plastic film to shrink-wrap the state of Texas!

LEARN THE 5 R'S!

REDUCE the amount of waste we produce.

- ...buy only what you need
- ...buy "economy size" or bulk packaging
- ...avoid disposable products
- ...bring your own paper, plastic, or cloth bags to the grocery store
- ...choose boxes with gray interior (recycled paperboard)
- ...look for recycle symbol or the words "made from recycled materials" when shopping
- ...choose products packaged in recyclable materials
- ...when possible, choose product packaging that is easiest to recycle (such as glass instead of plastic)

REUSE as much as possible.

- ...use products that are made to be used many times, such as cloth diapers, cloth napkins, sponges, towels and rags, dishes, rechargeable batteries
- ...use the blank back sides of paper for scratch paper
- ...purchase used goods at second hand stores, garage sales, and flea markets to eliminate unnecessary production

REJECT over packaging and environmentally hazardous products.

- ...avoid over-packaged goods
- ...avoid non-recyclable packaging and containers
- ...choose non-aerosol spray containers
- ...avoid disposable products

REPAIR broken items instead of replacing them.

- ...mend clothes
- ...repair broken appliances
- ...make repairs promptly, before damage progresses
- ...service vehicles regularly to keep in good condition

RECYCLE the products that are recyclable.

- ...identify the recycling centers in your community
- ...identify the garages and service stations in your area that will accept and recycle used motor oil
- ...identify local businesses (doctors, dentists, nursing homes, day cares) which accept used magazines
- ...donate used clothing, furniture, etc. to thrift shops
- ...have a neighborhood/family garage sale annually to recycle unwanted items
- ...trade in old appliances and vehicles when possible
- ...be familiar with recyclable materials: glass, aluminum, newspaper, etc.



BE A PART OF THE SOLUTION!

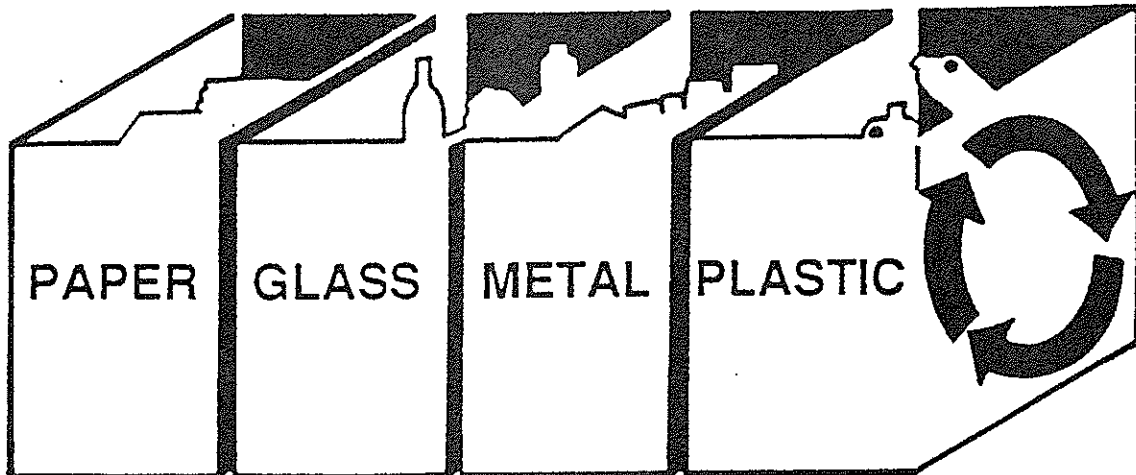
Hoosiers produce about 14 million tons of garbage a year and bury more than 90% of it in landfills. Even as we produce these massive amounts of waste, we are running out of places to bury it. Ten years ago, about 85 licensed landfills operated in Indiana. There are only approx. 45 left today. The remaining landfills are rapidly reaching capacity, and new facilities are difficult to establish due to widespread public opposition.

Many people feel that recycling is a "hassle" and not worth the time. Some believe that it is easier to simply throw the garbage away and let it be hauled to a landfill. But many of the things we throw away can be recycled, and recycling is one way to ease our dependency on landfills. If each of us recycled household generated newspaper, glass, aluminum, and plastics, we could reduce the amount of material going into landfills by up to 15%.

We can no longer afford to be a "throw-away" society. Each of us adds to the problem and each of us can contribute to the solution.

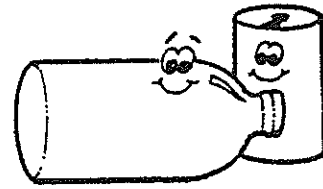
Recycling requires only a small amount of space and a few seconds a day. Reserve some space under the sink or in the corner of the garage as a home recycling center. Use a cardboard box or grocery bag for cans, another for glass, and another for newspaper. At first you may have to remind yourself not to throw away recyclables. Old habits can be hard to break. But after a few times of putting recyclable items in their proper containers rather than in the garbage, you will be on the way to creating new, recycling-conscious habits.

DID YOU KNOW?
1,500 aluminum cans
are recycled every
second in America.



"ONE MAN'S TRASH IS ANOTHER MAN'S TREASURE."

STOP! THINK!! Before you throw that
in the trash can, is it really trash?
Could it be recycled? Could it be
reused? Is it really broken? Can it be
mended? Could it be given away?



HECTOR THE COLLECTOR

by Shel Silverstein

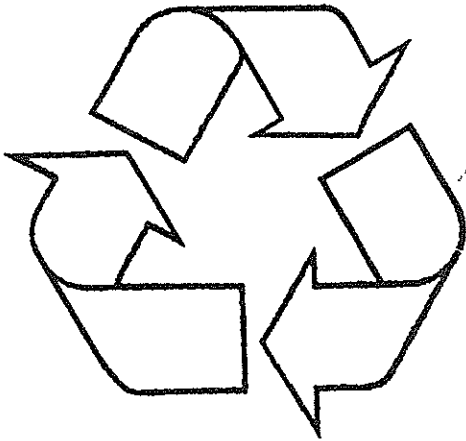
Hector the Collector
Collected bits of string,
Collected dolls with broken heads
And rusty bells that would not ring.
Pieces out of picture puzzles,
Bent-up nails and ice-cream sticks,
Twists of wires, worn out tires,
Paper bags and broken bricks.
Old chipped vases, half shoelaces,
Gatlin' guns that wouldn't shoot,
Leaky boats that wouldn't float
And stopped-up horns that wouldn't
toot.
Butter knives that had no handles,
Copper keys that fit no locks,
Rings that were too small for fingers,
Dried up leaves and patched-up socks.
Worn-out belts that had no tracks,
Airplane models, broken bottles,
Three-legged chairs and cups with
cracks.
Hector the Collector
Loved these things with all his soul
Loved them more than shining
diamonds,
Loved them more than glistenin' gold.
Hector called to all the people,
"Come and share my treasure trunk!"
And all the silly sightless people
Came and looked.....and called it junk.

Text and illustrations from Shel Silverstein,
Where the Sidewalk Ends, 1974.
Reprinted by permission from Harper & Row,
Publishers, Inc.

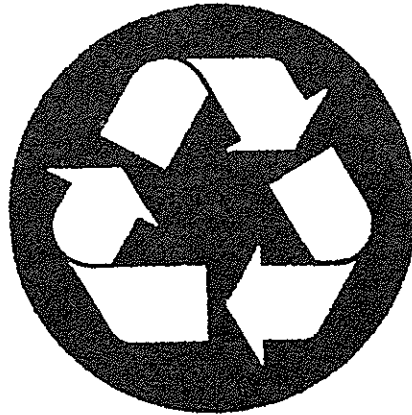
TRUE RECYCLING

To be a true recycler, you must buy recycled goods and products packaged in recycled material whenever possible.

Here are the common RECYCLING symbols to watch for:



This indicates that the package is recyclable.



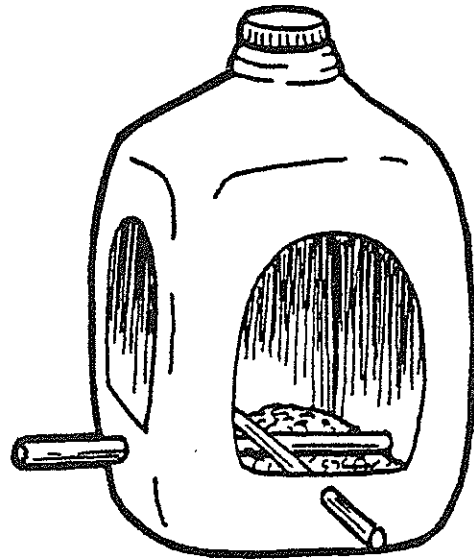
This indicates that the package is made from recycled paper/products.

CRAFT IDEAS FROM TRASH

BIRD FEEDERS:

Materials:

Clean household containers such as
milk, detergent, and bleach bottles
milk cartons
coffee cans
pie tins
onion sacks, etc.
mustard jar lid (for tracing circles)
sticks or dowels for perches
small log
bottle caps
screw-eye
knife
hammer
nails
wirecutters
pencil
ruler
light wire
coat hanger



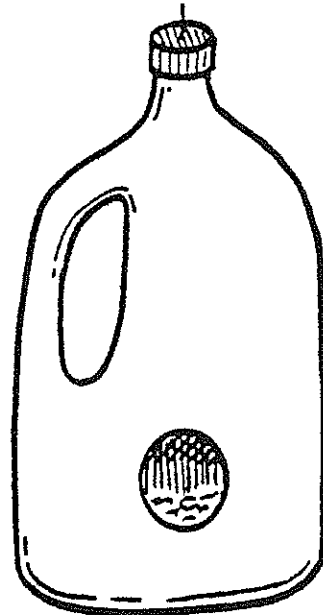
Milk jug feeder

PROCEDURE

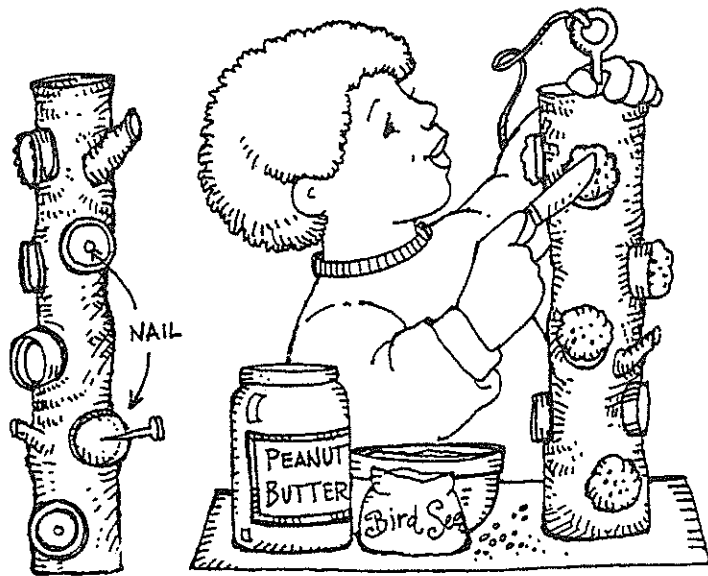
Create bird feeders out of clean household containers using the drawings for models. Ask an adult to help you with the cutting. Don't forget to punch small drain holes in the bottom of the containers to let rain water out.

COMMUNITY SERVICE

Encourage your club to make bird feeders and donate them to a local nursing home. Be sure to explain your 4-H Recycling project to them. Offer to maintain (keep feed in them) the feeders for the residents.



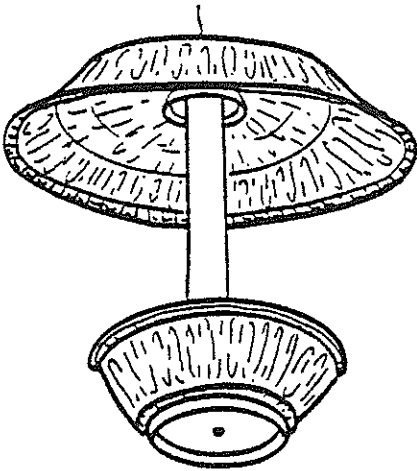
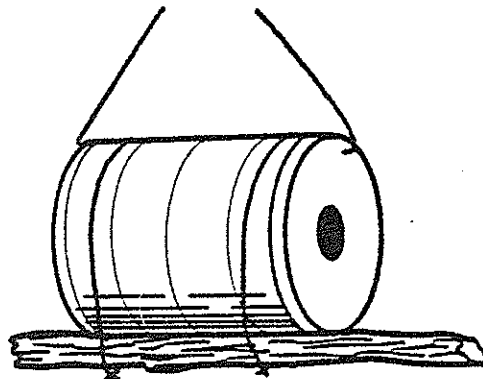
Detergent bottle feeder



Onion sack suet feeder

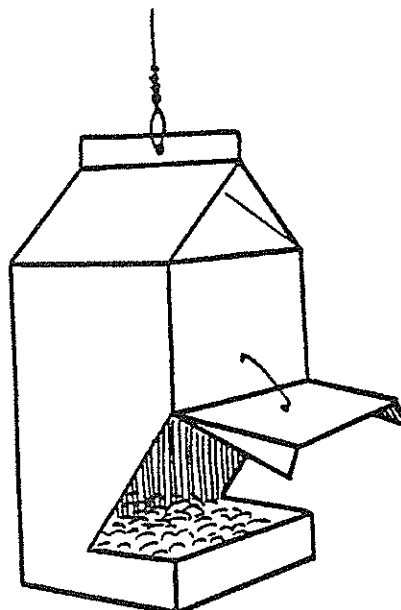


Coffee can feeder



Pie plate feeder

Milk carton feeder



TOYS AND GAMES

RING TOSS GAME

1. Save 6 plastic lids (from coffee cans, margarine tubs, etc.)
2. Cut the centers out so that only the rings remain. (See diagram 1)
3. Place a cardboard paper towel tube in the center of the bottom of a margarine tub and draw around it with a pencil. (See diagram 2) Carefully cut out the circle.
4. Paint or color the tube with a fun design. Insert it into the hole in the margarine tub (See diagram 3).
5. Challenge your parents and friends to a game of ring toss!

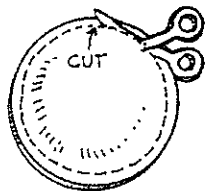


Diagram 1

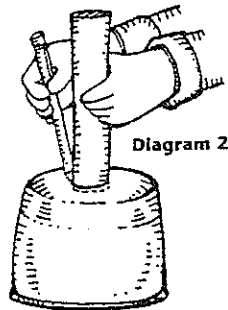


Diagram 2

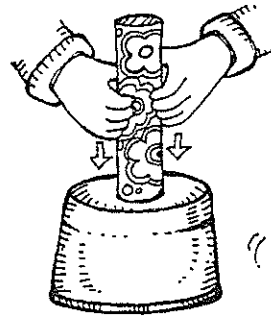
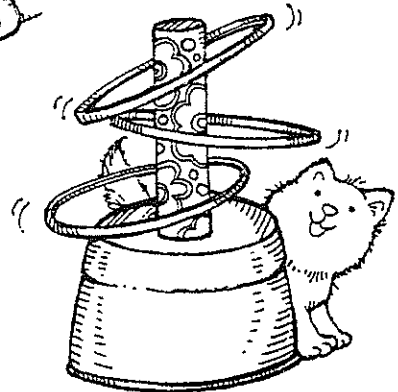


Diagram 3



BUTTON TOSS GAME

1. Save an old foam cup and decorate it using permanent markers.
2. Use a nail to punch a hole near the rim of the cup (See diagram 1)
3. Thread one end of a 15" piece of string through the hole and tie a knot to secure.
Tie the other end to a large button with a loop on the back (See diagram 2).
4. To play Button Toss, swing the button into the air and try to catch it in the cup.

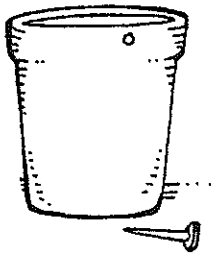


Diagram 1

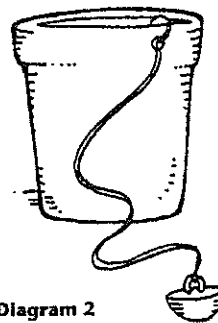


Diagram 2

SCOOP GAME

1. Save two to four plastic milk jugs. Rinse them thoroughly.
2. Make a "scoop" out of each bottle by cutting away the bottom and one side as shown. (See diagram 1).
3. Give one scoop to each player and toss a small ball back and forth, catching it in the scoop.

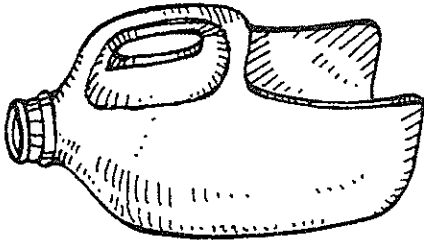
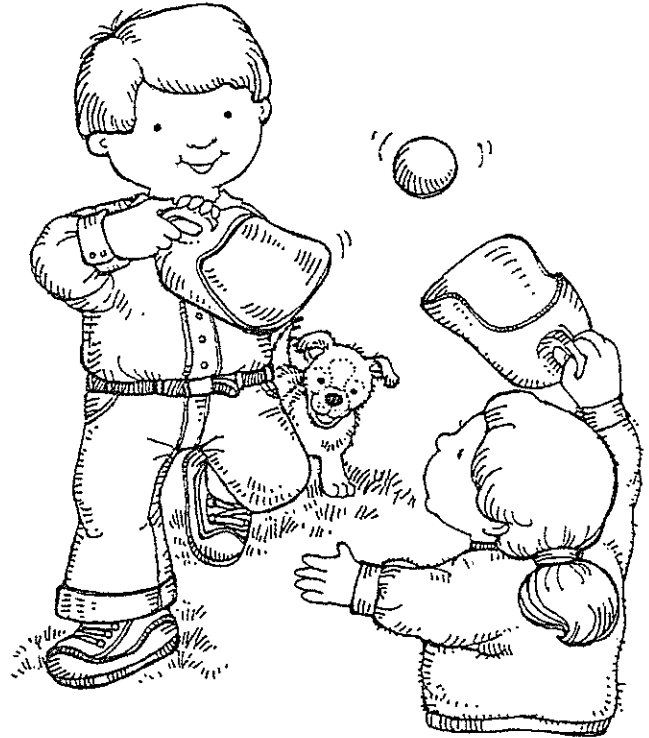


Diagram 1



BOWLING FOR BOTTLES!

1. Save 10 plastic bottles of the same size. (water bottles, 16 oz. pop bottles, 2-liter pop bottle, etc.)
2. Rinse them thoroughly and remove the labels. Set them up in bowling pin formation and see how many you and your friends can knock down with a medium-sized ball.



GROCERY BAG KITE

1. Cut off the bottom of a large paper grocery bag so both ends are open.
(see diagram 1)
2. On one side, mark a point one-third of the way down from the top, and halfway across the bag. Make an "X" with masking tape over this point, then draw two lines from the upper corners of the bag, through the "X" to the opposite lower corners. (see diagram 2)
3. Cut along the lines to make "wings." (see diagram 3)
4. Open out the wings and tape them to the remaining wide side of the bag as shown. (see diagram 4) The sides of the bag will form flaps that extend down.
5. Cut a triangle-shaped vent at the bottom of the bag, and place a piece of tape at each corner for reinforcement. (see diagram 5)
6. Use crayons or markers to decorate your kite.
7. With a hole punch, make holes in the corners of the wings. Cut a 6 foot long piece of string and tie one end to each hole. (see diagram 6)
8. Tie the end of your roll of kite string to the middle of the string attached to the kite.
Now, you're ready for some high-flyin' fun!

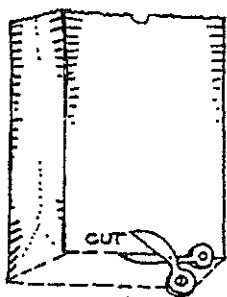


Diagram 1

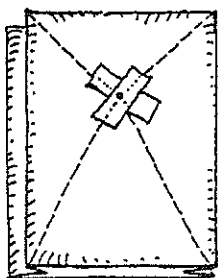


Diagram 2

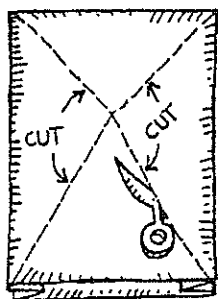


Diagram 3

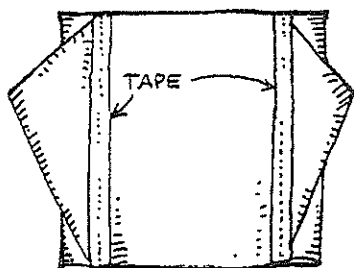


Diagram 4

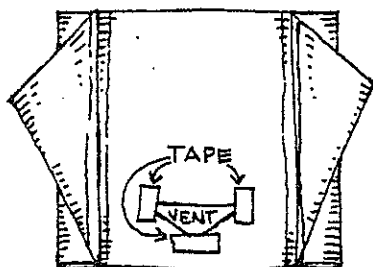
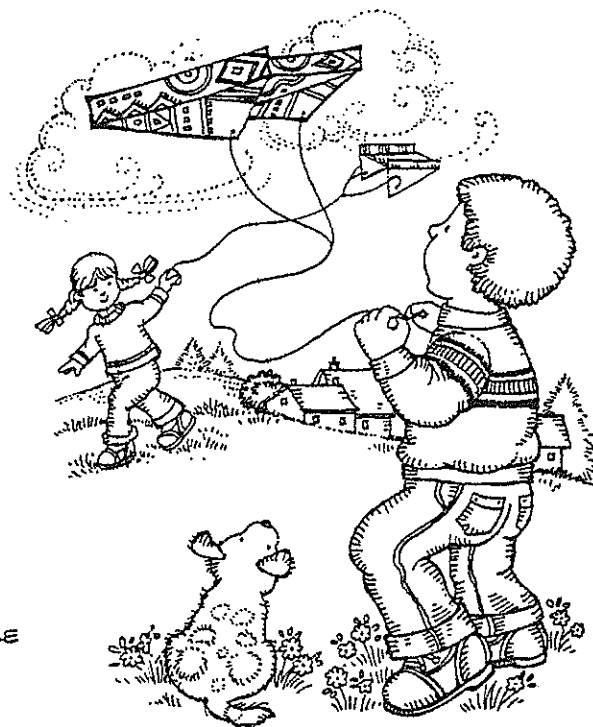


Diagram 5

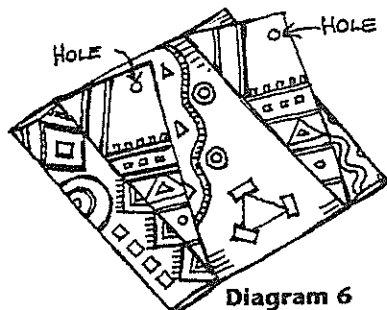
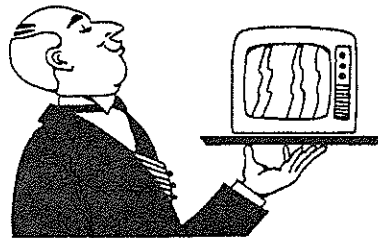


Diagram 6

FOR ADDITIONAL RESOURCES, CONTACT.....

Newport-Vermillion County Public Library, Newport, Indiana 492-5001
Clinton Public Library, Clinton, Indiana 832-8349
Vermillion County Extension Office, 1st floor Courthouse, Newport
832-7786 Ext. 148 or 492-3394
Indiana Institute on Recycling, Terre Haute, Indiana 812-237-3000

DID YOU KNOW? The energy saved from recycling one aluminum can could keep your TV running for three hours!



JUST FOR FUN..... TONS OF TRASH

The average person throws away about 5 pounds of trash every day. Really!
Now figure this.....

1. How much trash do you throw away in one week? ($5 \times 7 =$) A. _____
2. How much trash do you throw away in one year? ($A \times 52 =$) B. _____
3. How many people are in your family? C. _____
4. How much trash does your family throw away in one year? ($B \times C =$) D. _____
5. If you threw away one less pound of trash per day, how much trash would you have in one year? ($B - 365 =$) E. _____
6. If each person in your family threw away one less pound of trash per day, how much trash would your family have in one year? ($C \times E =$) F. _____
7. What is the difference between lines D and E? ($D - E =$) G. _____

**REDUCE, REUSE, RECYCLE! IT REALLY DOES
MAKE A DIFFERENCE!**

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50 Nifty Crafts to Make. Cohen, Cambria. 1992. RGA Publishing Group, Inc.

The Indiana Recycling Handbook. Indiana Recycling Coalition. P.O. Box 2044, Indianapolis, IN 46220-0444.

The Indiana Recycling Handbook: Revised Edition. Indiana Recycling Coalition. P.O. Box 2044, Indianapolis, IN 46220-0444.

Kids Create. Carlson, Laurie. 1990. Williamson Publishing. Charlotte, VT.

Project Recycle. Rayburn, Cherie. 1991. Current, Inc.. Colorado Springs, CO.

Solid Waste Activity Packet for Teachers. Illinois Department of Energy and Natural Resources and University of Illinois Cooperative Extension Service. 1991.

Solid Waste: From Problems to Solutions. Illinois Department of Energy and Natural Resources. 325 W. Adams, Room 300, Springfield, IL 62704-1892.

RECYCLING INTERNET SITES TO CHECK OUT:

Internet Consumer Recycling Guide
<http://www.obviously.com/recycle/>

Global Recycling Network
http://grn.com/grn/grn_news.htm

HandiLinks to Recycling Equipment and Services
<http://ahandyguide.com/cat1/r/r31.htm>

Recycling and Hazardous Waste Information
<http://www.houston.tx.us/recycling/index.html>

EcoWeb
<http://ecosys.drd.virginia.edu/EcoWeb.html>

Environmental Organization Web Directory
<http://www.webdirectory.com/Recycling/>

Compiled by: Becky Holbert, Extension Educator, 4-H and Youth Development