



**Love Allah**  
**Unite to put the Planet-Ecology together**  
**Love Allah-RECYCLE**

STORY  
And  
Follow-up  
Teaching Materials

**By**  
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(Year 1420 HJ - 2000 AD)

Waqf Sunni Book

<http://www.ummah.net/islam/taqwapalace>



One day, my granny asked us children to seat upon a hill with her.

“I have a true story that I want to tell you,” she said “ so you can remember it and tell your children about it when I would be gone.”

At this time, we were watching over the fields; the crops were almost ready for harvest. It was beautiful! The grass was shining under the sunlight and appeared deep green. The animals were healthy and lived happy between themselves. The sky was clear and the air agreeable to breathe. The elderly continued.

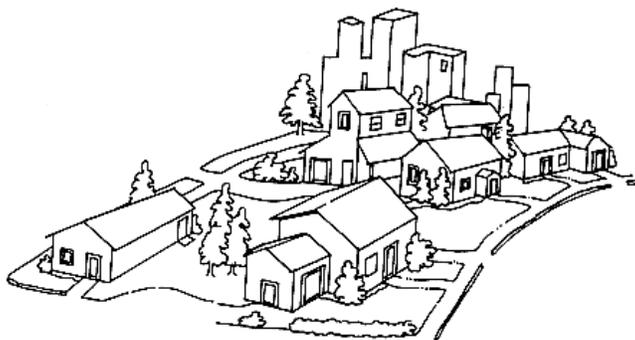
“This story happened when I was just as tall as you are, and I was one of the children who changed things in this valley.” She marked a paused and resumed. “ See, at the beginning our valley was even more beautiful than it is today, with more shady locations and plenty of fish. Hardly any people were sick and there weren’t any noise except those natural sounds created for our pleasure by our Lord Allah.



I spent myself many hours fishing in a pond we had at this time. It does not exist anymore. Palm trees stand over it now. Many varieties of trees grew here too when I was your age, and also many species of animals, or so was it until the pollution. You should have seen me at this time! I liked to draw sketches of everything living under the sky. I did not know at this time that these drawing were going to be a great treasure for people like me. Many of these animals, nobody will ever see them again!

“What happened, grandma?” I said, very amazed.

Everything began when the first modern houses were built. At first everybody was happy because new people were coming, and with these new people, new ideas, comfort and hospitals we did not have yet. We rejoiced to find schools and not only village people who devoted a few hour of their time to educate us with the little they knew. Now, we really had a chance to know about the world! Maybe even some of us would have the Blessing of becoming a scholar?



To make a long story short, we were all very excited, except for a few groaning elders who had always lived a traditional life and did not want to change anything about it.

They said to us: 'Do not be so happy to see all these people; one day they will prevail over you. *One should live the way Allah has performed with what is available therein.* Do we really need faucets and roads? Do we need schools when the elders can teach our children? Do we need all these people who do not have any religion for some of them?'

They kept on groaning, but already nobody was listening to them anymore.

Meanwhile, it was obvious that a few changes had occurred in the community. First of all, people were dumping their trash anywhere, on the streets, in the public gardens, on the curb. Even though we had the trash taken care of and dumped in a landfill, people did not respect the workers who did the job and were less than careless concerning what they were trashing and where. It was not unusual to see trash on fire or to hear an explosion in the dump trucks because of aerosols.



Soon workers had to work day and night to clean the streets. Our mayor had to give tickets to people throwing things out of their cars. Can you picture trees with balloon or plastic bag hanging from their branches?

Trash was discarded in landfills, but soon there was no room anymore for this garbage. Peasants got angry. Of course, the area was smelly; the decomposition of this trash stocked underground released heavy metals and toxins that would pollute the ground and the water.

Some of the garbage was released one day into the river! Fish breathe in the water; they draw the oxygen they need from the water. Since the waters were polluted, fish could not breathe anymore and died out rapidly. People tried to hide the fact by telling us that it was in the habit of fish to suicide in-groups every now and then like some rats do in Europe. This was quite unbelievable, but still people did not react; they swallowed the pill! However, fishermen noticed that animals living around water often died; they had their mouth caught into packs of six plastic rings. Furthermore, some animals thinking plastic bags floating in the surface of the water were food, died in the attempt of eating them! Soon enough, our beautiful sky filled with dark clouds and these dark clouds stayed there, never leaving the sky.



Soon, smog from cars, trucks and buses caused the sky to look permanently gray. People began to have illnesses such as cancer or asthma, and bronchitis, pulmonary diseases and even influenza. Too many people lived in such a small place as our valley. Because of the burn of fuels by power plants, industries and motor vehicles, acid rain began to pour into the water and over the forest. The result? Trees became ill and the animals left them.



Some of the birds of prey could not even lay their eggs anymore or the eggshell was too weak. So they stayed here until the last of them died out.

Finally, the last animals that were not intoxicated by the oil in the sea or in the rivers departed for new countries and new lands where they would feel more protected.

At this moment, the children began to look around.



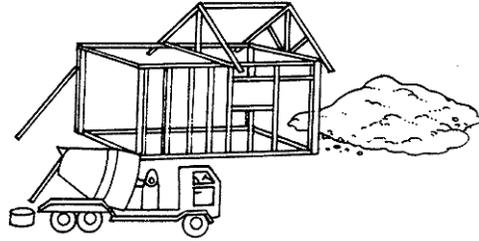
Adults were too busy at the time making money or taking care of their household to really notice the changes around them. So, in the company of the few adults that really felt concerned, we met in the mosque and began to talk about all what was happening in our valley.

We divided into groups and we decided to go around the neighborhood to have an estimation of the situation. How bad was the situation? Each group traveled around its part of the country and began to notice.

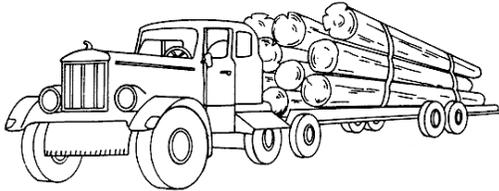


The first group saw that the beautiful and luxurious forests we used to have had been cut down bit by bit. For every tree people had cut, plants and animal life were reduced to their minimum. They noticed dead animals on the ground of the forest, and nobody thought about planting trees back at the place where they had disappeared.

On the contrary, they saw fields and fields of corn and wheat. No wonder it was impossible to find millet or pomegranates anymore! We began to think that we would never see anymore of those multicolored fields where all kinds of food were growing.



The second group noticed that the wood cut from the forest was used to build new houses. These houses were not built to last long; they served the occasional tenants and were destroyed a few years later. Not only that, but the wood used for the foundations of other houses was discarded after it had served its purpose. People also bought furniture from the rarest trees we had in the forest. These trees were hundred of years old! And woodpeckers had their nests in it as well as their stocks of nut they dug with their beaks during summer! These woodpeckers used to quarrel with the squirrels all winter long and kids liked to see them arguing around the nuts stuck into the tree or sometimes play games together. Now, a hundred of logs were carried away every day! How many animal and plant houses were destroyed each day in order to build human homes? Children were too sad to make calculations!



The last group wandered around the town and saw that in many years the landscape had really changed. To make sure of what they saw, they went to the public library and got old pictures of the area. What was their surprise when they recognized old playgrounds turned upside down and log cabins squeezed between bulldozers! Instead stood more and more factories, and with factories, more and more skyscrapers. The population had doubled since a few years, actually since they were children, but they had never really bothered to look around as long as they had enough to eat and a place to sleep. Well! Not anymore it seemed.

When we met again all together at the mosque, this is the decision we took: we had to seek the advice of grown ups. So we went to see our parents. But our parents were too busy calling people on the phone or writing letters to their colleagues, or typing or traveling from conferences to meetings. We refused to get discouraged, so we went to see the oldest people in the town. Surely they would have time for us, and they would be wiser than our parents since they had lived longer! So we went to see them, but they were always complaining of being tired or they would tell memories of the past. Some were still actives, but when we went to see them in their gardens, we saw that they were using chemical pesticides

along with all kinds of fertilizers. It was not use bothering them; they would nothave understood at this time what we meant about the protection of the environment.  
No wonder! This was a new problem for them as well as for us!

This year was a terrible year!

We first had the drought. The summer had been exceptionally dry. The fumes coming from the industries and the ongoing deforestation made our stay in the valley almost unbearable! It seemed that evergreen spots had to disappear from the surface of the earth since the town constantly built parkings and streets. Summer was ideal for the construction work!

Us, kids, could not bear one more minute of all this! We were on vacation and the vacation was originally destined to let children help parents harvesting and do the entire extra farm work needed at the time. Now, nobody needed us anymore; the machines and the robots did the work for us. We were stiff bored, and feeling very unhappy!

This year, for the first time ever, we witnessed the first cyclone whirling miles away from the town. That was the scariest time of my life!



The cyclone let many people without shelter and work! It killed more fish and more animals and many trees were scattered around because they had become too weak to resist any assault of the wind. Finally we decided that nothing would happen without Allah's Benediction, so we prayed and prayed again, till our feet swelled.



We asked Allah to send us somebody who could advise and help us.

Some of our prayers must have reached because, one day, we heard that a great imam, a Muslim scholar, was on his way to our town to talk about the pollution in the world. This imam would maybe be the answer key to our worries and concerns?



The imam exclaimed upon his arrival:

*Corruption has appeared over land and water on account of what man's hands have wrought.*

[Qur'an 30:41]

*Do not cut down trees and do not kill animals except for food.*

*Eat and drink, but waste not by indulging in excesses; surely, God does not approve of the intemperate.*

[Qur'an: 7:31]

*Man shall have nothing but what he strives for [Qur'an 53:39]*

Then , he repeated three times:

Watch your waste, then recycle.

Watch your waste, then recycle.

Watch your waste, then recycle.

In his Friday Khutba, he explained further:

Both indoor and outdoor pollution are the result of businessmen's greed.

Why? Because you spend too much shopping, and your desires have taken over you!

More than that, pollution is really a problem of ENERGY (how we heat our homes, how we use electricity and fossil fuels); and also TRANSPORTATION.

Look at our traditional ways, in opposition to the modern ways of production and transportation!



What to do?

Keep objects as long as you can, or reused them!

Be careful of what you purchase. Can you recycle them? Do you need to eat so much?

Do not use 'disposables' like disposable cameras, but use digital cameras.

Find some other alternatives such as batteries you can charge over and over again. If using disposable batteries, make sure you recycle them because of the mercury they contain that may be harmful to the environment.

First of all, do you really need all that you consume? Look around the house and ask yourself why you need two irons, 50 toys, 3 television sets, that much clothing or towels? How many times do you change shoes after the first year of use? And, do you need to heat your house so much? Can't you use more blankets and more pullovers? Do you let the water gushing whenever you brush your teeth or when you perform ablutions? Do you take showers instead of baths so that you can use less water? The pollution is not only the problem of industries and political powers; it is also and principally inside your doors, among yourselves.

Consume less and you will need fewer industries! Walk more often and ride your bikes more often, so you will release less smog into the atmosphere! Eat healthy and do sport, so you will not waste as much your time and your natural resources. See Allah has forbidden us to waste. He stresses the importance of nature and its beauty so much in the Qur'an that nobody can ignore the fact that wasting or killing without necessity is a great sin, should it be a human being or the last of the mosquitoes on earth!

Our Prophet, peace be upon him, said: *Whoever is kind to the creatures of Allah, is kind to himself*, and whoever pays attention to any living creature, Allah pays attention to him.

Do you know that knowledge in Islam is obligatory as well as action whenever there is injustice on earth? So, before you do anything, you have to be strong in knowledge.



? 2000-2001 [www.arttoday.com](http://www.arttoday.com)

If you want the birds to come back, **read** on any subject related to ecology and the environment! **Plant** trees! **Write** to political leaders or to industries to complain about pollution! **Call** your recycle services and the sanitation bureau to ask them what have been done so far in the matter of protecting the environment! **Tell** them you are motivated and ready to do something! Finally, write to Associations like Greenpeace! These associations can **help you** in many ways. It is better to rely on them for information and advice, but this should not prevent you from creating your own Association. **Contact** local schools so you could be invited to **do presentations** or they could invite people to talk about issues concerning the environment. **Attract** more and more children to the cause, then try to reach to parents. To protect the environment should be priceless, a pride you should instill in people.

So, after the Khutba, us children walked out of the mosque, very excited about the new plan and very much decided to make it work!



So, what did we do?

The first thing we did was to meet people to ask questions and be prepared to launch a campaign all over the town. The slogan was:



Of course we began by setting the example. Things had to come very slowly so that everybody could be accustomed to the new ideas. In order to reach this goal we had to make people aware of what would happen.

There were basically a few easy things people could do. If we could convince them, we would reduce the trash by half!

We spent hours talking and arguing with fast food restaurants, in offices, with the mayor, but finally we got the permission to put those signs in every public area.



Some places also promised to reduce their 'disposables' by half!

It was much harder to convince my mother to use washable cloth diapers for my younger sister! But she finally complied!



Most of the kids tried hard to explain to their parents a new way of shopping. Some even did it themselves so their parents would not have to worry about these issues. At least, it was a beginning! Parents would come around seeing our enthusiasm and its usefulness.

Sidi, my older sister decided to take things in hand. She invited women of the neighborhood to come with her shopping. While they stayed together and had a great time, Sidi explained what choices they could make for a better and friendlier environment. She asked the women what they used to buy, and why, and pointed out that they should buy objects they could use and use again. She stressed on the quality and the pleasure going with the purchase of products of quality.



She made them remark that a mega refill or family size product used fewer wrappings, consequently they were reducing their wastes and it cost them less money.

She make them understand that not only they spent less money buying a king size, but their trash would be reduced, reducing the overall cost of getting rid of the trash by the community.



She asked them to look for products showing recyclable on its label. While paying, she would take a tote bag she had with her. She would encourage the women to design their own shopping bags. She would particularly stress the fact that plastic bags were hard to recycle and paper bags came from trees. She would ask them to:



Our local teacher was soon involved in the activities. Since he was very handy, he would show fathers and some of the children how to fix furniture and mechanical objects:



We also had Mister Fix Everything whenever we needed him. He became the busiest man in the town! People soon discovered that they could at the same time reuse most everything and keep children busy! Kids would decorate old jars and use them as vases. Old tissue papers or straws were used to make flowers. Kids made also scrap books to study what kind of trees and plants we had around.



or created original postcards:

Teens would gather all their old clothes and give them to smaller kids in order to disguise themselves or make tents. They would hang tires from the trees for kid to climb on, or they would use old planks to build tree houses for themselves.



Whatever we had in our junkyard, we sold them in a huge yard sale. The idea was, if you did not want to keep those things, then maybe others could have the use of it.

Whatever was not bought during the yard sale, we drove it to the Thrift shop and Goodwill, so that poor people could buy them for very cheap.

Humanitarian Associations were in charge of it so we were sure the things were in good hands.



To reduce was part of our slogan. That was not enough; now we had to tell people about recycling. All this asked a lot of efforts from everybody, especially recycling because people tend to put everything in the trash without an after thought. They would often forget to sort out items, causing the entire recycle bin to be put in landfills.

The consumption of paper could be reduced dramatically. That was easy to do, but we had to advertise many times in order that people could get the message. See a forest was necessary for the edition of the Sunday local newspaper, every week.

This newspaper could well be printed on recycled paper.

Apart from that, there was the problem of us using too much paper because the paper was readily available.

We went to many places over the town, asking people to gather discarded paper and write on the opposite side whenever they needed scrap paper.



Schools or libraries could well provide a box where people could use and reuse strips of paper to take notes before recycling this paper.

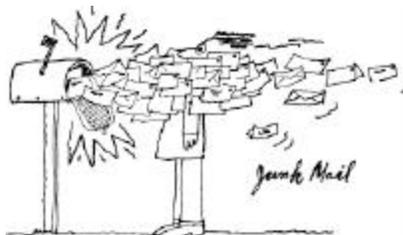
Somebody made us notice that it was not necessary to print everything since we had now floppy disks, disks and computers!

Most of the time, you could do presentations on the computer or you could get the book you wanted by the inter-library loan, or on the Internet. While printing documents, half of the paper used by people could be cut in half by printing on both sides! Furthermore, documents were less heavy and easier to store.



We often advised: use both sides while taking notes, and use already recycled paper to reduce the cut of the forests.

Paper was our first concern because paper is made from the trees, and trees are made for us to breathe oxygen in the air. Forests also kept rain inside the earth and kept the soil in place. Without forests or trees, the Earth would be a desert! But what upset us the most was all this junk mail we received in our mailboxes that we did not ask for.



Somebody told us that, by writing to:

*Direct Marketing Association  
6 East 43<sup>rd</sup> Street  
New York, NY 10017*

we would get rid of them. Wow, it really cut the junk mail by 75%. Incredible!

For companies that already had our names and addresses, we sent mail back saying that we did not want to receive any mail from them. We also complained about companies that would use plastic in order to package their products. We wrote to them and told them that they could use wrappers made of 100 percent plant-fiber cellulose because they were transparent too, and recyclable.

Finally, we would sort



plastic,



aluminum, glass, paper for the hauler that would pick them up, or we would take them to the drop-off service.



From the materials recovery facility, some kinds of plastic could be made into carpets or paper made into paper again, aluminum cans into aluminum at less cost for the community.



We would encourage each other and compete in reusing and recycling. We had contests showing who was able to reuse the best or the houses that recycled the most were cited as examples between people.



The result?

After a few years of efforts, we were able to reduce the garbage by 70%, and sometimes to 90%. Water was less polluted and quite a few industries closed because people did not buy enough. But we were happier, and we had also learned the sense of community. Even if a few people resisted us a long time, they finally came around and enjoyed being involved or seeing their children do something of a higher purpose.

People praised each other and were able to see each other more often. We praised Allah for His Benediction. AlHamdulillah, soon, we launched another part of our program.

We warned people about the pollution due to used oil.



We encouraged them to recycle, then we let them try alternative ways to cut the grass in their gardens.



They noticed that it was less noisy and finally more relaxing to use the traditional mower. Fertilizers could also be obtained by composting leaves and branches or by letting them decompose away from the rain and the wind.



After this conquest, we encouraged them to become insect friendly:



Little by little animals came back to our valley, and we gradually replanted most of the trees. The valley of course was not as beautiful as it had been before, but at least Allah was pleased with us again.

New farms were built, and that was happy because we were many people to be fed. Farmers did not use pesticides or hormones because they were well aware of the damage. They also knew Allah Ta'alah would not be happy if they did not let insects and animals feed from one part of the crop.

“There is no Muslim who plants a tree or sows a field, and a human, bird or animal eats from it, but it shall be reckoned as charity from him.”

“Partake of it (the land) with joy, so long as you are a benefactor, not a corruptor, a cultivator, not a destroyer.”

Whoever was able to revive the land, this land belonged to him according to the Islamic law. So new people were drawn to our valley and the one who owned property worked very hard for keeping what they already possessed.

Now, every family remembers what happened to our valley, and we make sure our children learn from us and the Qur'an, so nothing like before can happen again.



Join us for some activities

### About Recycling

#### What did you learn from the story?

What are the 4 principles concerning what you can do about too much trash?  
Unscramble the words:

UECRDE: \_\_\_\_\_

UEERS: \_\_\_\_\_

YRCELEC: \_\_\_\_\_

CTA: \_\_\_\_\_

### REDUCE

1) What can you reduce in you house that you do not really need?  
Find the letters missing:

Number 1: P \_ \_ \_ \_ \_ G

Number 2: T \_ \_ \_ C products.

2) What can you do to reduce number 1?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

3) What are the number 2 items; cite some of them:

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

**REUSE**

What did you learn concerning reusing materials in different ways in order to avoid discarding them or to make sure you are using them to the brim?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_

**RECYCLE**

What are the 3 good behaviors concerning recycling?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

**ACT**

What can we do to act?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_
- f) \_\_\_\_\_
- g) \_\_\_\_\_
- h) \_\_\_\_\_

## Waste Not!



### Game:

Each person playing in the game must have a reproduction of FIGURE A before him.

The trash cans in FIGURE B must be placed in the center.

Copy and cut around each images in FIGURE C; these are the playing cards. Place the cards on the FIGURE B.

Pick a card, and then tell if the object is either:

- 1) Reusable: sofas, refrigerators, clothes, books.  
Can be sold at garage sale or thrift shop
- 2) Recyclable: paper, aluminum, glass, some plastics  
Can be picked up by sanitation department or taken to locate recycling centers.
- 3) Compostable: materials that create methane and bad smell in landfills can be composted into nutrient-rich soil and fertilizer (food waste, leaves, grass clippings, kitty litter.)
- 4) Avoidable: disposables like pens, razors, plastic diapers

If you find the right answer, put the card (image) on top of the boxes before you, FIGURE A; place it at the right spot, either recyclable, reusable, compostable or avoidable.

Each box has different bonus points.

If, for example, your card was COMPOSTABLE, you win 2 points.

You will count your score at the end of the game!

If your answer is wrong, put the card (image) on top of the trash cans to recycle it into the game!

Put the card under the first pile of cards or right next to it so another player will not reuse it right away.

You may find several answers for the same image!

There is no right or wrong answer as long as you can justify your choice.

When the object do not fall in any of these categories, you miss a turn!

Even though place the card back into the trash cans; maybe another player can find the category for it!

Some images give you the answer right away, that's the chance card!

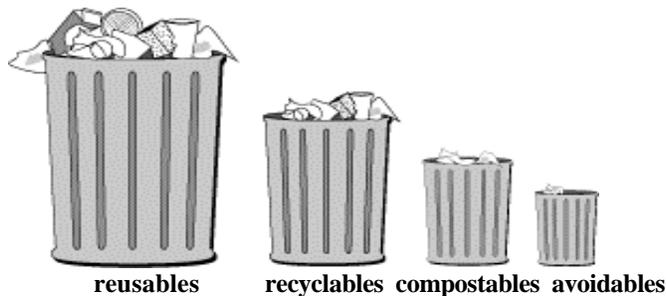


FIGURE B

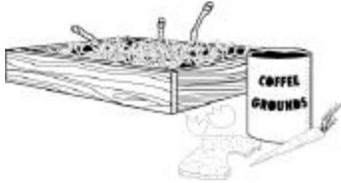
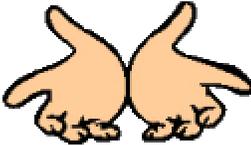
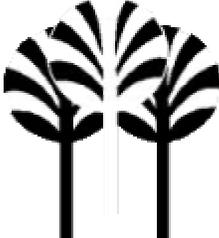
<p><b>RECYCLABLE</b> (3 points)</p>	<p><b>REUSABLE</b> (1 point)</p>
	
<p><b>COMPOSTABLE</b> (2 points)</p>	<p><b>AVOIDABLE</b> (5 points)</p>
	

FIGURE A

			<p><b>Recharge!</b></p> 
 <p><i>Reuse it!</i></p>			
			
	 <p>oil</p>		
	 <p>Sun's energy</p>	 <p>Polystyrene table set</p>	

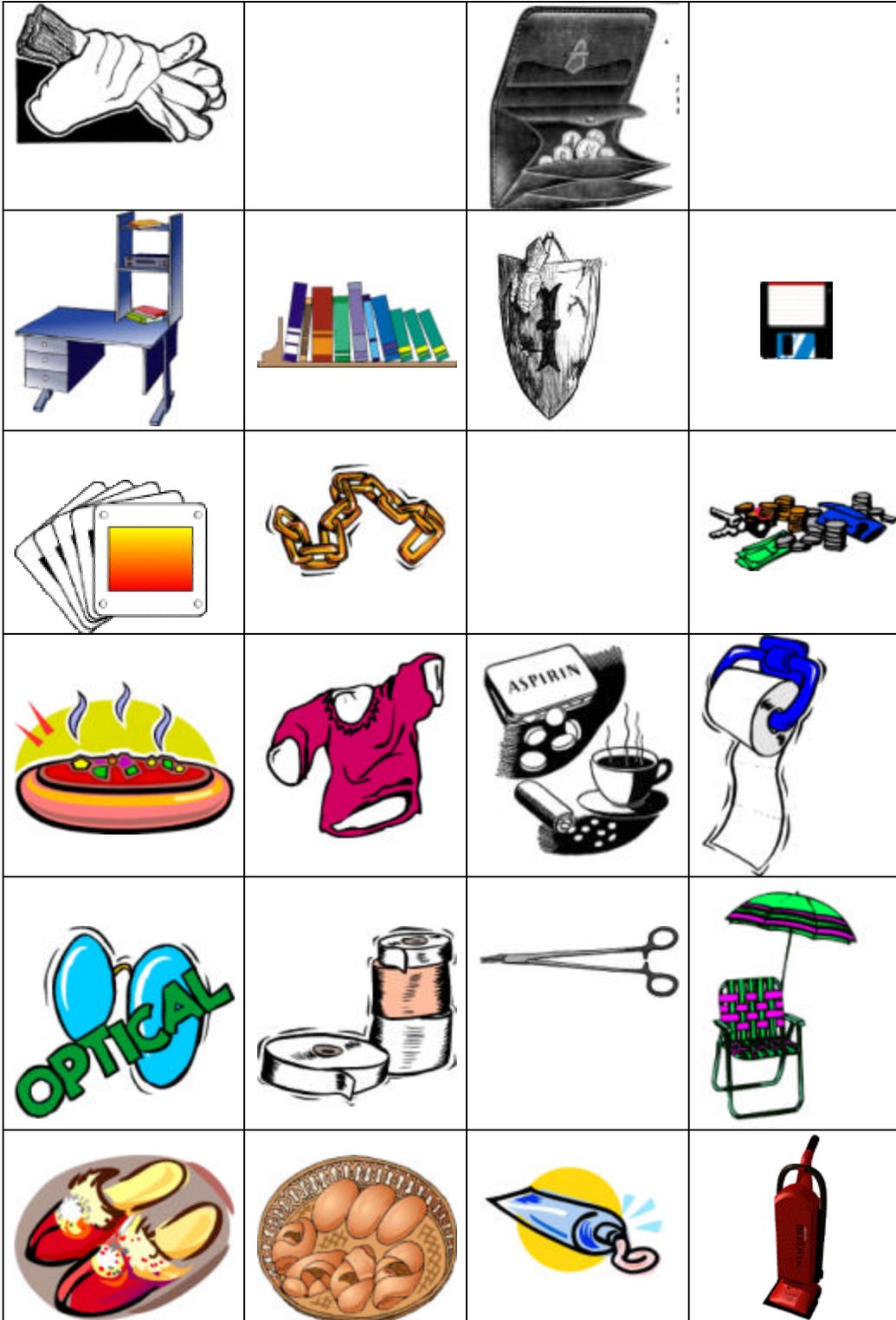
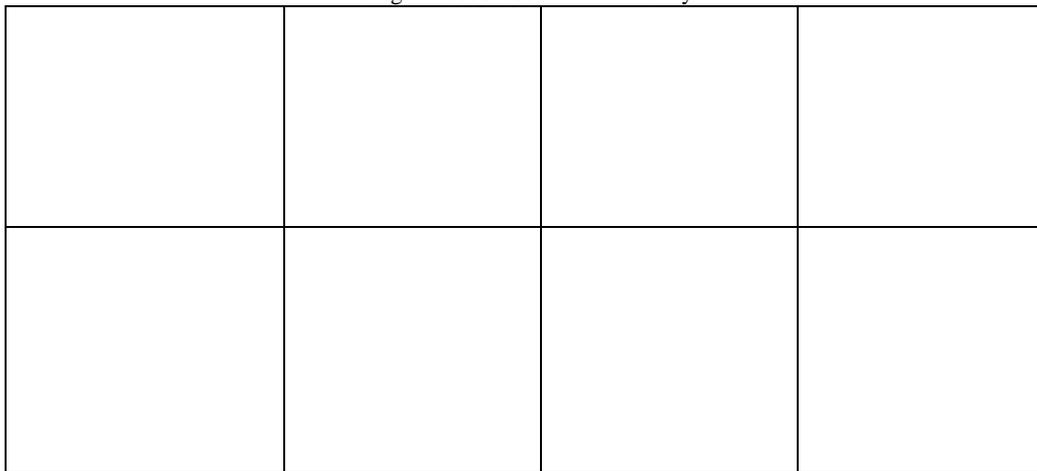




FIGURE C

All images ? 2000-2001 www.arttoday.com



### GAME: Build your recycling tower:

Here are only recycled object. The aim of the game if to match an object with what it is made of (the recycled material it is made of). For instance, a pen can be made of recycled plastic, so you must pick a card saying plastic and a card saying pen.

The recycling tower is supposed to be filled up collectively. For the tower, see FIGURE D. However, each player takes its turn.

Cut individually, then place the cards, in FIGURE E, face down before you.

Pick up two cards from the ones face down. If the cards do not match, replace them both on the ground, face down, for the an other payer to try his turn.

You can fill up the tower only 2 cards at a time together in its own bin.

For instance, if you pick up the cards saying *pencil* and *magazine*, return them face down before you; you have lost your turn. A pen and a cassette for instance should go both in the plastic bin if picked at the same time because they are both made of recycled plastic. Try again for a second pick up!

Discuss the cards together, in-group.

Notice that you can sometimes match the same object with different materials. Make your choice!

**Notice!** Some cards are misleading on purpose, just to make you think more.

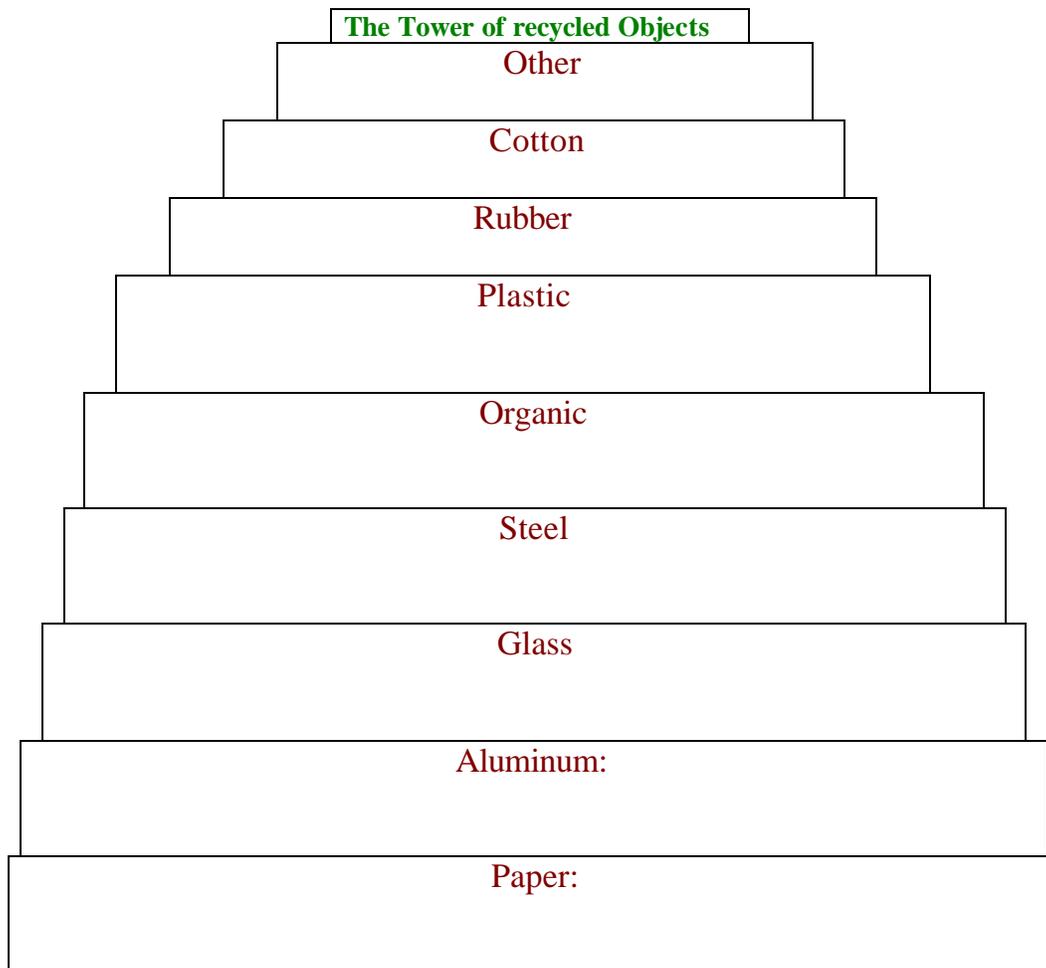


FIGURE D

Can	Racket	Bottle	Lumber	Playground
Toy	Tennis	Jar	Pipe	Park benches
Tray	Canoe	Carpet	Trash can	Newspaper
Lunch box	Bicycle	Snowsuit	Sleeping bag	Magazine
Phone book	Postcard	Poster	Cardboard	Game board
Bag	Sweater	Dog coat	Paving road	Runway
High quality paper	Battery	Sponge	Razor blade	Toothpaste
Sponge	Soap	Pot	Broom fiber	Hose
Phone card	Shower curtain	Curtain	Shoes	Box
Quality envelopes	Potting mix	Sac	Eraser	Book

FIGURE E

Some answers for both games:

**Glass:** Windows are not necessarily recyclable. Plate glass contains a chemical called *boron*; car windshields contain plastic; crystals contain lead; mirrors are backed with silver; light bulbs cannot be recycled but they are smashed then used in road construction.

**Paper:** Do not recycle anything with adhesive, including “post-it” notes, envelopes, address labels. Do not recycle fax paper, NCR paper or blueprints since they have chemicals coatings in it.

**Plastic:** There are 50 different kinds of plastic.

The book of Kevin J. Anderson and Doug Beason called *Ill Wind* is a good science-fiction book explaining that our world is made of plastic. If all the plastic in the world would dissolve, we would not have fridge, no electricity, no windows, etc. We are so much surrounded by plastic, that we do not really notice it. Plastic is to be found in most machines, packaging, plumbing, stationery...

The main types of plastic are designed by: PET, HDPE, PVC, LDPE, Polypropylene and Polystyrene.

At the bottom of each plastic container, there is a number that goes from 1 to 6; number 7 means the container is non-recyclable (all other resins and layered multmaterial).

#1: PET (polyethylene terephthalate) is used for soda bottles, peanut butter jars, etc. Carpeting is made of recycled PET

#2: HDPE (high density polyethylene) is lightweight and colorful; it is to be found in milk jugs, butter tubs, detergent bottles, motor oil containers and bleach bottles.

HDPE is recycled into flowerpots, trash cans, traffic barriers or recycling bins.

#3: PVC (vinyl or polyvinyl chloride) is used in bottles for water shampoo or cooking oil, garden hoses, flooring, credit cards, shower curtains, etc.

#4: LDPE (low-density polyethylene) wrap packaging on cassettes and CDs, sandwich bags, dry-cleaning plastic. It is thin and filmy.

#5 Polypropylene makes the plastic bottle caps, lids, drinking straws, broom, rope, twine, yogurt containers, carpet. It is the lightest plastic, but hard to recycle.

#6: Styrofoam or polystyrene foam. This plastic is completely non-recyclable therefore hard to recycle. However, some industries turn it into light switch plates, note pad holders, cassette tape cases.

**Other:** Wool can be recycled and rewoven; cotton fibers can give quality paper; rubber from tires is made into paving roads, playgrounds, runways.

**Basic essential terms you must know:**

Write the meaning of those words as the definitions come to you:

**Recycle:** \_\_\_\_\_

**Precycle:** \_\_\_\_\_

**Ecosystem:** \_\_\_\_\_

Let's look more closely at the basic signification, or **etymology**, of these words:

Look up in a dictionary:

Can you find the etymology of these words looking at the stem word (**prepositions**) and the root word?

Can you find examples of words beginning with:

**Re-** \_\_\_\_\_

Can you guess a meaning of the preposition **re-**:

\_\_\_\_\_

Do the same for the prepositions and root words:

Prepositions:

**Pre-**

Examples: \_\_\_\_\_

Meanings: \_\_\_\_\_

**Eco-**

Examples: \_\_\_\_\_

Meanings: \_\_\_\_\_

**Geo-**

Examples: \_\_\_\_\_

Meanings: \_\_\_\_\_

Root words;

**-cycle**

Examples: \_\_\_\_\_

Meanings: \_\_\_\_\_

**-system**

Examples: \_\_\_\_\_

Meanings: \_\_\_\_\_

Now, in the light of what you have just searched for, what is the definition of these words?

**Recycle:** \_\_\_\_\_

**Precycle:** \_\_\_\_\_

**Ecosystem:** \_\_\_\_\_

In order to preserve our ecosystems, precycling and recycling are master words. We can all watch out what we are buying, and what we are throwing away. Thus the Earth and its inhabitants can all be healthier and live in a balanced world where there are not many nasty surprises, where we all can feel safer. Sometimes it takes only a few minutes per day to avoid accumulating too much waste; maybe it just takes a conversation with your neighbors. Maybe you can end up filling up a trash bag only once a month, and, like some families, you could even get to fill up a trash bag once every five years only! Imagine never have to worry about trash anymore? Would you like that?

Well! **IT IS** possible

**Vocabulary:**

A syllable is a group of letters forming a sound. Example: [ood] in 'wood', 'food', 'hood'. Fill in the answers to the clues by using all the syllables in the Syllabox. Syllables can be used several times.

**Syllabox**

RON ECO ZONE TION DE POLLU EN LOGY RE FILL TINC TION SYSTEM MENT GRA DANGER BIO LAND ABLE TANT CYCLE VIR OZ EX
---

- 1) -----: Protects the earth
- 2) -----: Close to disappearance
- 3) -----: Site for wastes
- 4) -----: Life cycles
- 5) -----: Where we live
- 6) -----: Can be reused
- 7) -----: Can decompose in nature
- 8) -----: End
- 9) -----: Man creates it
- 10) -----: Causes harm to the environment
- 11) -----: Can decompose

**Things you can do for the environment:**

Letters of the words are mixed up. Unscramble the words below.

- 1) VEAS: -----
- 2) ECLYEERC: -----
- 3) ESOISDP: -----
- 4) EEUSR: -----
- 5) TREWI: -----
- 6) LTUIAESN: -----
- 7) TTOECP: -----
- 8) TPNLA: -----
- 9) VTRNEEP: -----
- 10) NALER: -----
- 11) PUTRPSO: -----
- 12) STOMPOC: -----

**Trash in calculation:**

1) The U.S. generates 160 million tons of solid waste a year, enough to fill a line of 10-ton garbage trucks half way to the moon.

How many times around the Earth could that make?

Answer: \_\_\_\_\_

2) In the US, people produce 5 pounds of garbage for each individual every day. How many pounds that makes per year?

Answer: \_\_\_\_\_

3) Each household throws away 13,000 pieces of paper a year.

How many is it per day? Round it:

Answer: \_\_\_\_\_

4) In one year, we discard enough plastic soda bottles and milk jugs, enough to fill a line of dump trucks to cover a distance between New York and Cleveland.

How many miles are there?

Answer: \_\_\_\_\_

5) Each year, it costs \$7.5 billion to get rid of household and office garbage. If you know that this amount is enough to pay for 1,000 schools or 500 hospitals, how much does it cost to build a school?

Answer: \_\_\_\_\_

6) 700,000 tons of toxic wastes are produced in the US every day. How many in one year?

Answer: \_\_\_\_\_

7) 12 million of tons of pesticides sprayed per year. How many that makes per month?

Answer: \_\_\_\_\_

In 1950, the average use of fertilizers was 20 kg per hectare; today it is 91 kg.

### Critical thinking: Imagine:

#### 1) Steps to force recycling in the US:

Recycling is mandatory in 10 US states. These states help recycle hundred of tons of paper, glass and metal in each town every year. Recycling helps them to save some million dollars on energy costs, thousand of dollars in disposal costs, and create new jobs. In order to implement recycling laws, some towns like Hamburg, N.Y., force people to recycle. The city informs people of the laws concerning recycling in the town. If people do not recycle, the city warns them they will stop picking up garbage if they refuse to cooperate. In other towns, people are reduced to the use of one garbage bag per household; this forces them to recycle and reduce waste.

Can you think of other ways to encourage people to recycle and reduce their wastes? Explain:

\_\_\_\_\_

#### 2) Can we recycle landfills?

Canyons in Los Angeles are filled with garbage and covered with soil to make new parks.

How is it possible? Ask around if you do not know?

\_\_\_\_\_

Dupage County, Illinois, piled the garbage into a mountain and converted it into a winter ski slope.

How do you think this was made possible? What are the problems encountered with this type of solution?

\_\_\_\_\_

#### 3) True stories:

Johny Apple Seed was a man who grew apple trees during the early settlements in North America. One day, he decided to follow the people who were heading to the Wild West. He took a sack of apple seeds and began his journey, planting apple seeds whenever he found a nice place for his future trees.

a) Up to Islamic standards, what do you think of Johny Apple Seed?

---

b) With your knowledge of ecology, especially concerning the disruption of the natural habitat, do you have an opposite viewpoint?

---

c) What do Muslims traditionally do for their environment? What do you think about the effort made by the Saudi farmers to revive deserts by planting crops on it? Is it a new idea?

---

d) Oasis are scattered all over the deserts. Traders moved to these places and began planting trees near water. A palm tree takes at least 20 years to give fruits, often it takes more time. Thus, people who plant palm trees barely or rarely see the result of their efforts. Most of the time trees and houses end up buried in the sand dunes. People have to struggle every minute with the natural elements in order to survive. Why do desert people plant palm trees? What benefits do they gain from growing oasis? Is it worth it?

---

4) Arbor Day in the US is the day when people gather and plant trees together. This celebration, originated by Julius sterling Morton since April 1872 is now celebrated all over America.

a) Do Muslims have a special day for planting trees or taking care of the environment? Why?

---

b) Would you like to celebrate such a day? Why?

---

## **GARBAGE: municipal actions:**

### **Landfills:**

Would you mind living near a landfill dump?

Of course not! No one likes to live near them because there are risks involved.

Landfills are holes the municipality makes into the ground. The hole is covered with a protection to avoid **leachage** as much as possible. Then garbage is piled in strips about 8 feet high and covered with a layer of earth. When the site is full, a thick top layer of soil is added on top.

As the waste decomposes it produces methane and this gas has to be gotten rid of before it can build up and cause an explosion or endanger people's lives. Furthermore, **leachates** (liquid leaks from landfills) pollute the underground and rivers and lakes.

Some landfills have means to control leachates; the methane coming from it is collected and used as fuel. Unfortunately, these sophisticated landfills are not the majority of landfills because the installation costs a lot of money.

Landfills are dangerous; they can catch fire and can attract rats, flies that carry diseases. Nonetheless, landfills are the cheapest means for countries to store their garbage.

Actually 67% of our wastes are dumped into landfills, 16% are incinerated, and only 17% are recycled.

We run out of space, we do not know where to throw our garbage anymore, so boats of garbage float over the oceans from one continent to another to find a country that, at last, would accept to take the load! Most of the time, these country recipients accept our garbage because they are in need of the money.

All that could be avoided if each household would take the time and effort to limit waste, and recycle!

In the US, a household trash contains per year:

13,000 pieces of paper, 1,800 plastic items, 500 aluminum cans and 500 glass bottles.

Every day, each person in the US throws three and a half pounds of trash, which means that in all the US, people fill 100.000 garbage trucks!

Every year, we waste in garbage:

43.000 tons of food, 20.000 cars, 4 million ballpoint pens, 20.000 TV sets, 4.000 trucks and buses, 548.000 tires, 48 million disposable diapers.

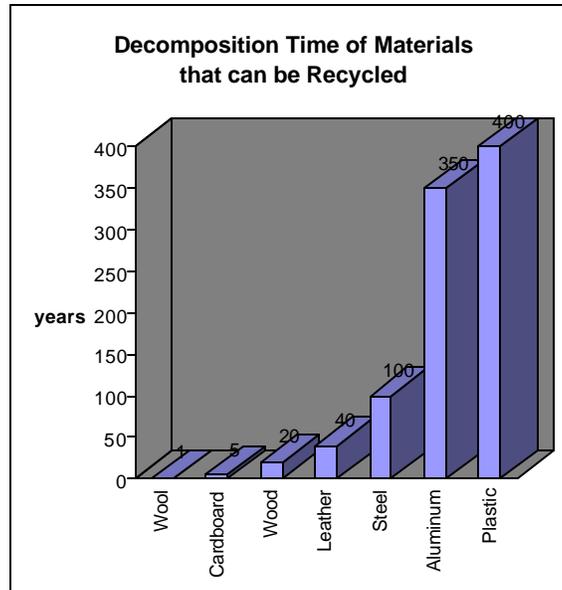
How could this be avoided?

Did engineers find some solutions?

Describe:

-----

These numbers are impressive, especially if you know how long it takes for many objects to decompose:



**Saving energy can limit nuclear wastes:**

1) Look at the graph below.

What are the machines that use most of the energy in an average household?

---

Which machines, in your opinion, are the most useful?

---

Which machine can be used less in order to save energy?

---

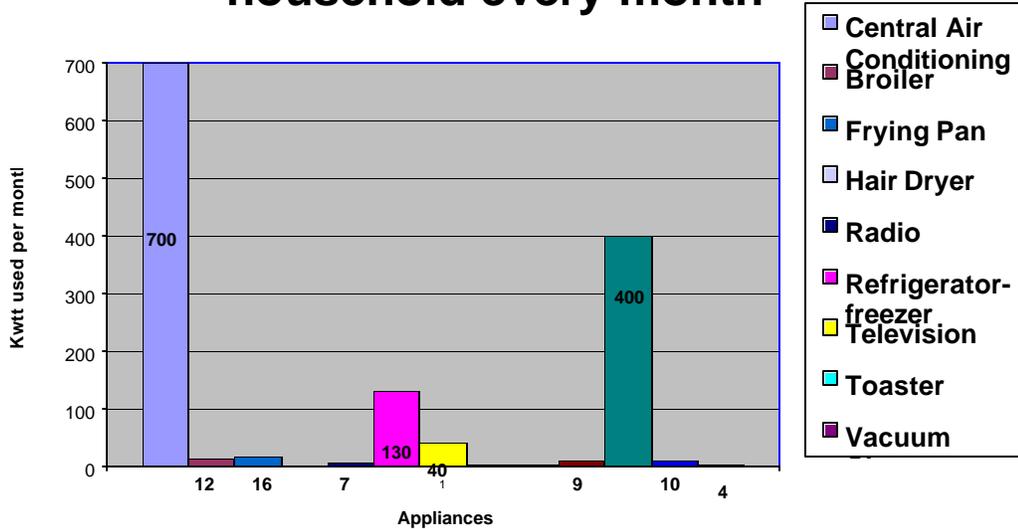
Which ones can be used less in order to save energy, and how would you replace these energies?

---

How much KWH per month can this American family save its members decide to really reduce the energy consumption this month?

---

## Total Energy used in an American household every month



How many KHW per month can you personally save if you decide to really reduce the energy consumption in your own house? Challenge yourself and see if you can reach really this goal next month!

### CONCLUSION: TOWARDS A BETTER WORLD:

Many things have been accomplished this century concerning the prevention of pollution, even if the effort touches mainly developed countries and there is much more to do yet.

#### 1) Wastes: Personal responsibility:

81% of solid wastes went to landfills in 1980  
67% went there in 1990.

We now recycle, compost and incinerate. AlHamdulillah!

Modern landfills have impermeable clay floors and heavy plastic membranes beneath them to prevent leaks. They are also capped with thick layers of clay. Many have systems for collecting liquids (leachate) and for venting or even recycling methane gas. They receive material to control odors, scavengers spreading diseases and run off.

#### 2) Helping Progress:

Light weight aluminum cans means less materials used. Steel cans are 60% lighter since the 50's and glass bottles 35% and plastic 25% less than the 80's.

In the 1930's, commercial laboratories developed compounds of chlorine, fluorine and carbon and similar bromine-related (halocarbons) compounds as convenient, non-corroding non-toxic and non-flammable gases used in sprays, air conditioners, and refrigerators. Unfortunately, after some years, they rise into the

sky and react with the ozone, which they destroy. Scientists are now working on it. And this is only one example of the progress that have been done do far!

3) Indoor air quality:

People use more and more indoor plants, and some species are grown only for this purpose. For a house of 1,500 square feet, 15 to 20 plants are adequate to clean air. Pot the plants with a mixture of soil and granular charcoal, which absorb and degrade organic pollutants from the air. Plants that are good to remove pollutants indoors are: chrysanthemum, gerbera daisy, spider plants, philodendron.

4) Citizen Action:

Waste watch promotes citizen action and participation in waste issues and policy making; provides information and education on resources and environmental issues.

Waste watch  
1346 Connecticut Ave. N.W.  
N 217, Washington, DC 20036

GREENPEACE:  
1436 U Street NW  
Washington, DC 20009

## Glossary

**ABLUTION:** the act of washing oneself with a small amount of water. Wudoo.

**BIODEGRADABLE:** Everything that can decompose naturally and quite rapidly, like fruits, paper, etc. Plastic or metal and not bio-degradable because they need a very long time to decompose or they need fire or other external factors to decompose.

**CLEAR-CUT:** To cut down all the trees in a part of a forest.

**CLIMATE:** The usual weather conditions of a region through the year.

**COMBUSTION:** burning.

**DECOMPOSE:** the breaking down of organic or organic things after they died.

**DEVELOPING COUNTRIES:** A country where people work mainly at farming, mining or logging, not in industry.

**DEFORESTATION:** Clearing land of trees by cutting or burning.

**DIVERSITY:** Variety.

**ECOSYSTEM:** All the living and non living things in a certain area.

**EVAPORATE:** To change from a liquid into a gas, such as when water is boiled, it turns in steam.

**EXTINCT:** No longer in existence.

**ENDANGERED:** When a population is so small, it's at risk of becoming extinct.

**FERTILE:** Land where plants and forest can grow easily.

**FERTILIZER:** Product (chemical or natural) that helps plant growth.

**FOSSIL FUELS:** a fossil is the remnant of animals and plants living a long time ago. Coal is a fossil fuel because it is thousands of years for coal to form underground. The same thing for petrol gas, etc.

**GREENHOUSE EFFECT:** The trapping of heat from the Sun within the Earth's atmosphere. The burning of fossil fuels creates gases that prevent heat from escaping into space. This makes the Earth hotter.

**INDIGENOUS PEOPLE:** Native, original inhabitants of a region.

**INDUSTRIAL COUNTRIES:** Where people work more in manufacturing, like making cars from steel.

**IRRIGATION:** the act of building channels or using hoses to water plants and crops. Watering.

**LANDFILL:** a place where we dump trashes and cover the place with a fresh layer of earth.

**LEAKAGE, LEAKAGE:** the liquid that flows out when an object or something organic decomposes.

**LOGGING:** The business of cutting down trees and bringing them to sawmills.

**NUTRIENTS:** Providing nourishment.

ORGANIC: everything that lives.

POLLUTANT: anything that causes pollution, i.e., that endangers living creatures.

RADIOACTIVE WASTES: radioactivity is a way of producing electricity by the explosion of atoms. It is safe ecologically if well controlled, which is often not the case.

RUNOFF: the water that slips underground, that runs off when it is in excess.

RURAL: Farming pace; the country side.

SEWAGE: waste matter like urine, soiled water from bathroom, kitchen, etc., that is carried by drains.

SMOG: Fog-like condition that exists permanently because of pollution from oil, coal, etc.

SPECIES: A group of people, animals or plants that have many common characteristics or qualities.

SUSTAINABLE: Using the forest in a way that does not harm it, so it can be used in the future.

TOXINS: A poison that is produced.

URBAN: a place where there is a town and where there is a gathering of many people. Usually it is an industrial or commercial area.

VEGETATION: All the plants or plant life of a place.

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## ANSWERS:

Answers: what did you learn from the story?

### REDUCE

What can you do to reduce number 1 (packaging)?

- a) When choosing between two similar products, select the one with the least unnecessary packaging.
- b) Buy single items instead of complete packages whenever possible. This is true for items like wrenches, screwdrivers, nails, vegetables, etc.
- c) Finish all products you have at home before you buy new ones, and try natural products too.
- d) Let politely clerks know when it is not necessary to double wrap a purchase or refuse they give you bags. Bring your own bag!
- e) Consider buying large or economy-sized items for laundry soap, vegetables, rice, etc.
- f) Use bulk merchandise that you can share with friends or neighbors.

What are the number 2 (TOXIC products) items; cite some of them:

Use only the amount you need; do not discard what you do not need; share with neighbors! For products containing hazardous components, read and follow all directions on product labels carefully. Make sure the containers are always labeled properly and stored safely away from children and pets.

- a) Pesticides. Why not planting marigolds in your garden to ward off certain pests instead?
- b) Detergents. Why not using salt and vinegar in order to wash basins or around the kitchen?
- c) Aerosols. Why not using orange peels or incense that you warm up to instill a good freshener in your home. At least, natural perfumes do not affect the quality of your smell. Sometimes just opening the doors for a few hours is enough to freshen the air in the house!

### REUSE

- a) Buy products you can reuse later.
- b) Maintain and repair durable products
- c) Use containers in different ways
- d) Buy durable, not disposable
- e) Borrow, rent, share whenever possible. Use libraries, thrift shops, yard sales, etc.
- f) Donate or sell used items or items you never used and do not need

Reuse scrap paper and envelopes. Use both sides of a piece of paper for writing notes before recycling it. Save and reuse gift boxes, ribbons, and larger pieces of wrapping and tissue paper. Consider making crafts out of the small items you do not know what to do with like old buttons, strings, etc.

Turn used lumber into birdhouses, mailboxes, compost bins, or other woodworking projects.

BUT DO NOT reuse containers that originally held products such as motor oil or pesticides; they are potentially harmful even after being washed. When you no longer have a use for a full or partially full container, take it to a community household hazardous waste collection center. Share newspapers and magazines with others; drop them in the entry of doctor offices, clinics, libraries for other people to enjoy.

**Somebody's trash can be another person's treasure!**

Also, keep appliances in good working order, follow manufacturers' suggestions for proper operation and maintenance since this will help you to keep items longer and in good shape. High-quality, long-lasting is always preferable. Do like our grandmothers: mend clothes instead of throwing them away, repair worn shoes, and leather items. And consider using low-energy fluorescent light bulbs rather than incandescent ones to save energy and cost less money.

**RECYCLE**

- a) Choose recyclable products and containers and recycle them.
- b) Select products made from recycled materials.
- c) Compost yard trimmings and some food scraps. Make sure your city allows it!

**ACT**

- a) Educate others on source reduction and recycling practices.
- b) Make your preferences known to manufacturers, merchants, and community leaders.
- c) Be creative. Find new ways to reduce waste quantity and toxicity.
- d) Participate in community recycling drives, curbside programs, and drop-off collections. Investigate curbside pickup schedules, determine what materials are accepted, locate drop-off sites, and find out when these sites are open, how they work.
- e) Look for items in packages and containers made of recycled materials.
- g) Compost.
- h) Where appropriate, encourage the use of reusable, recycled, and recyclable materials in the workplace.

**Answers: Vocabulary**

Ozone, endanger, landfill, ecosystem, environment, recycle, biodegradable, extinction, pollution, pollutant, degradable

**Answers: Things you can do for the environment:**

- 1) VEAS: SAVE
- 2) ECLYEERC: RECYCLE
- 3) ESOISDP: DISPOSE
- 4) EEUSR: REUSE
- 5) TREWI: WRITE
- 6) LTUIAESN: INSULATE

- 7) TTOECRP: PROTECT
- 8) TPNLA: PLANT
- 9) VTRNEEP: PREVENT
- 10) NALER: LEARN
- 11) PUTRPSO: SUPPORT
- 12) STOMPOC: COMPOST

**Answers: Trash in calculation:**

- 1) The distance from the Earth to the moon is 238,857 miles.

The Earth is 7,927 miles in diameter.

The circumference of the earth is then:

$$7,927 \times 3.14 = 24,890.78$$

So, to find out how many times around the Earth the distance to the moon makes, we have to divide one distance by the other.

$$238,857 \div 24,890.78 = \text{about 9 times and a half}$$

So, we waste per year enough for a series of trucks to turn 19 times around the Earth!

- 2) 1,825 pounds.

- 3) An average American trashes 30 to 40 pieces of paper a day.

- 4) The distance from New-York to Cleveland is found out by using a map and a ruler.

The distance is about 600 miles.

- 5) 7.5 billion  $\div$  1,000 = 7.5 million dollar

- 6) 700,000  $\times$  365 = 250 million of tons toxic wastes

- 7) 1 million of tons per month

Images are courtesy of:

<http://environment.about.com/>

And the California Integrated Waste Management Board: <http://www.ciwmb.ca.gov/Gallery/>