



In February our class (4BE) after reading some articles (*From cradle to cradle, What is global warming?* and *The greenest way to generate electricity*) and visiting some websites about environmental issues decided to carry out a survey, particularly in the town or villages where we live, in the area around Udine. We focused our attention on:

- **Shopping bags**
- **Packaging**

We decided to deal with shopping bags and the materials used to make them, since a recent law obliges all the shops, starting from the month of April, to sell only eco-friendly bags. Italy started thinking about a law to ban plastic bags in 2007. But only from 1 January 2011 those bags are outlaw.

Another point we wanted to research was the packaging used for the most common products we use every day (food and cleaning items). The results of what we found out are shown in the table below.

SHOP (Location)	PRODUCT	BRAND	PACKAGING
Eurospin (Pozzuolo)	Tuna	Rio Mare Maruzzella Nostromo	Carton (not eco-friendly), glass (except for big tins)
	Eggs	Almaverde Bio	Carton (recycled cardboard), plastic
	Cream	Chef	2\3 boxes in carton or tetrapack or multi-pack in plastic and carton
Carrefour (Tavagnacco)	Eggs		Plastic\carton
	Softener	Coccolino Vernel Chanteclair	Plastic bottles, multi-pack in cardboard
Pam (Udine)	Fruit juice	Santal Valfrutta Yoga Lipton Derbi Pago Rauch	Carton, if multi-pack, plastic wrapping\bottles
	Rice	Scotti Gallo	2 boxes (plastic, carton), cloth bag
	Toothpaste	Colgate Mentadent AnticaErboristeria AZ Sensodyne Colgate Oral-B	Plastic tube, cardboard box, plastic wrapping, except for children products
Despar (Pasian di Prato)	Face beauty creams	Vichy Nivea	Plastic, carton
Eurospar (San Giorgio di Nogaro)	Biscuits Mineral water	Oro Saiwa Brio Blu San Benedetto Pradis Sant 'Anna Panna	Plastic and cardboard packaging Plastic packaging
	Snacks Crackers Yogurt	Kinder Tre mulini Muller Activia	Plastic and carton packaging Two plastic wrapping and carton packaging No packaging

We realized that there is a huge waste of materials: not recycled cardboard and paper, usually “non-biodegradable”, and a large use of highly polluting plastic wrapping. In particular we noticed that products sold in multi-packs are the least environmentally friendly because they usually consist of several layers of polluting materials (plastic or not recycled cardboard) used to keep the items together. In fact, some products, like toothpaste tubes, are often packed in useless boxes, which represents a waste.

Luckily in 2009 more than 27 billion cartons in the world were recycled, this means adopting appropriate forms of collecting, sorting and recycling in accordance with local needs. For example in Italy there is a Consortium called COMIECO which developed many initiatives for the collection and recycling in our country.

With regard to plastic everybody knows that it is a dangerous and polluting material because:

- It's difficult to recycle: many regions in Italy don't have a separate collection of waste yet;
- It can modify the characteristics and the taste of the product contained in it;
- It might be dangerous for our health;
- It slowly decomposes (it takes up to 100 years, and it releases toxic chemicals into soils, lakes, rivers, and oceans)
- Plastic shoppers can clog drainage systems and contribute to flooding.
- When plastic bags are washed out to sea, they pose a threat to animal life.



Despite this, many companies still use plastic bottles for their drinks, while glass would be a more eco-friendly solution.

As far as bags are concerned, we found out that the type of bags that the shops\markets put at the customers' disposal are made of:

- ✓ Plastic (allowed until shops run out of stock)
- ✓ Cloth (eco-friendly but expensive, from €1 to €5)
- ✓ Bio-degradable bags
- ✓ Paper bags (quite expensive, not very eco-friendly but usually made of recycled material)



On the other hand, research has shown that biodegradable shoppers do not represent an ideal solution as stated in the article “Biodegradable plastic bags¹ can carry more ecological harm than good” (Fred Pearce, *The Guardian*, 18 June 2009). In particular:

- They require a lot of energy to make
- They degrade only in presence of light and oxygen (if buried in landfill probably will not degrade). Breakdown depends on temperature and humidity (it goes slow in cold weather) and they can release methane, a greenhouse gas 23 times more powerful than carbon dioxide
- There are many questions about the toxicity of the leftover

Besides, in our country the price of the biodegradable bags has recently been increased from €0.05 to €0.10, due to the new law we mentioned, which has been at the expense of the consumer rather than the retailer.

¹ They are made from maize, sugarcane, wheat and other crops. They may be composed of either bio-plastic, which are plastics whose components are derived from renewable raw materials, or petroleum-based plastics which use an additive.

WHAT CAN WE DO ABOUT IT?

CHOOSE THE GREEN SIDE OF YOUR LIFE and...

Keep to the three "R s":

- ✚ **REDUCE** the amount of trash you throw away. *DON'T THROW AWAY YOUR FUTURE!!!*
If you can, practice composting by using microorganisms (mainly bacteria and fungi) to decompose organic waste, such as food scraps and yard trimmings.

Benefits of Reduction:

- *It saves natural resources.*
- *It reduces toxicity of waste.* Selecting nonhazardous or less hazardous items is another important component of source reduction.
- *It reduces costs.* Preventing waste also can mean economic savings for communities, businesses, organizations, and individual consumers.

- ✚ **REUSE** containers and bags. *RE-USING BAGS IS BEST. RECYCLING IS SECOND BEST!*
If you can't avoid the use of plastic bags, remember that heavy duty plastic shopping bags are suitable for reusable shopping bags. Lighter weight bags can be reused as trash bags or to pick up pet faeces. As we have said most of the plastic shopping bags can be recycled into new bags where effective collection schemes exist.

- ✚ **RECYCLE... GIVE PRODUCTS A NEW LIFE!!!**

Recycle as much as possible and buy products with recycled content and containers. Recycling turns materials that would otherwise become waste into valuable resources. Benefits of recycling have a local but also a global effect. REMEMBER: Each ton of recycled plastic bags saves the energy equivalent of 11 barrels of oil, although most bags are produced from natural gas derived stock.

Did you know that...?

In recent years there has been a higher growth in the recycling of packages in places where the collection and recycling are usually just starting out or are not-existent, while the markets in which the collection and recycling have already started are confirmed stable.

Benefits of Recycling:

- Recycling can protect and expand manufacturing jobs and increases competitiveness.
- It reduces the need for landfilling (put the waste underground) and incineration.
- It prevents pollution caused by the manufacturing of products from virgin materials.
- It saves energy.
- It decreases emissions of greenhouse gases that contribute to global climate change.
- It conserves natural resources such as timber, water, and minerals.
- It helps sustain the environment for future generations.

STEPS TO RECYCLING A PRODUCT

Recycling includes collecting recyclable materials that would otherwise be considered waste.

Step 1. COLLECTION AND PROCESSING

Collecting recyclables varies from community to community, but there are four primary methods: kerbside collection, drop-off centers, buy-back centers, and deposit/refund programs.

Recyclables are sent to a materials recovery facility to be sorted and prepared into marketable commodities for manufacturing. Recyclables are bought and sold just like any other commodity.

Step 2. MANUFACTURING

Once cleaned and separated, the recyclables are ready to be manufactured with total or partial recycled content.

Among the common household items that contain recycled materials there are newspapers and paper towels; aluminum, plastic, and glass soft drink containers; steel cans; and plastic laundry detergent bottles. Recycled materials are also used in innovative applications and in industrial field such as recovered plastic in carpeting, park benches, and pedestrian bridges.

Step 3. PURCHASING RECYCLED PRODUCTS

Purchasing recycled products completes the recycling loop. As consumers demand more environmentally sound products, manufacturers will continue to meet that demand by producing high-quality recycled products.

OUR CONCLUSION

This survey made us understand how important it is to recycle and reuse goods, which is essential if we want to save our planet. We should **REMEMBER THAT THE EARTH IS OUR HOME!**