Global Warming / Climate Change

Do Something!

One Starfish at a time!

Many years ago, a young man, feeling possessed of wisdom far beyond his years, walked along a beach, contemplating the great mysteries of life. The waves, particularly violent this day, pounded repeatedly upon the shore, casting from the sea thousands of starfish onto the sand left to die a slow and meaningless death.

As he walked, the young man chanced upon another man, who appeared older, slower and seemingly less troubled about life than himself.

The young man observed the older man slowly picking up one starfish at a time, examining it and then hurling it mightily out beyond the reach of the incoming tides.

The young man annoyed by such an obvious waste of valuable time, demanded, "What are you doing old man?"

The old man, without as much as a glance at the younger man, responded, quietly, "Saving the starfish from dying."

Angered, the young man shouted above the thunder of the waves, "You old fool. Behold the thousands of starfish upon this beach. What possible difference do you think you can make?"

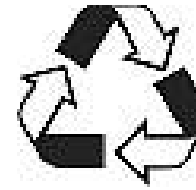
The old man did not answer at first. He simply picked up another starfish, examined it for a moment and sent it hurtling it out beyond the farthest wave.

"It made a difference to that one,"
he quietly replied stooping slowly to free yet one more starfish from its prison of sand.

What you can do!

Reduce waste, recycle!

Recycle glass, paper, plastic and cans. A lot of recycling in South Africa is done at the dumping sites; sort your garbage at home.



Reduce waste, re-use!

Re-use plastic shopping bags; sell stuff you no longer use or need; give old clothes to charity; use re-chargeable batteries.

Reduce waste, start a compost heap

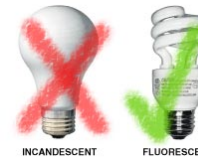
Convert your vegetable scraps, food leftovers, leaves and grass clippings into compost to build-up the soil in your garden.

Switch off the power

Switch off all lights and appliances that are not in use.

Change your light bulbs

Compact fluorescent light bulbs (CFLs) use about ¼ of the electricity conventional bulbs use and they last much longer.



Use Light-emitting diodes (LED)

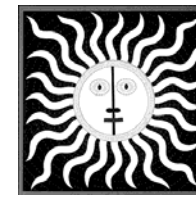
Light-emitting diodes are used in desk- and floor lamps. They use much less (up to 40% less) energy and last much longer than traditional bulbs.

Switch off the air conditioner

Open the window and use a fan to cool your office or home.
Exchange your tie and business suit with open collars and light clothing.

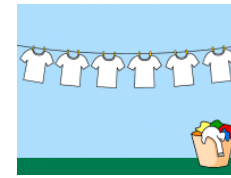
Go Solar!

Get a solar water heater or at least make sure that your geyser is insulated properly. It is estimated that the energy to generate hot water makes up about 40% of your electricity bill.



Wash clothes sensibly

Wash your clothes in warm, not hot, water; and wash a large load rather than a few smaller ones.



Use the washing line instead of the drier

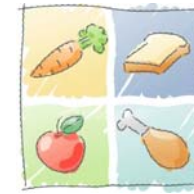
Save energy; let the sun dry your clothes.

Check the label

When buying new appliances, look for the Energy Star that identifies energy-efficient appliances.

Support your local farmer

Buy fruit, vegetables, milk, eggs more from your local farmer to save on transport costs to the market or supermarket.



Eat less beef

Roughly 18% of the world's greenhouse gases are generated by the international meat industry.

Say no to plastic bags!

It is estimated that less than 3% of plastic bags are recycled; they end up in landfills and emit greenhouse gases. Use a cloth or paper bag.

Use recycled paper

Use recycled paper for your projects, in your office, and at home.

Be less fashion conscious

It takes a lot of energy to manufacture materials and clothes. Wear yours a bit longer than fashion dictates or get together with some friends and have a wardrobe swap party.

Use environmentally-friendly packaging

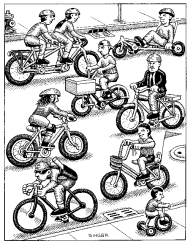
Popcorn is much better as filler in packages than Styrofoam pellets. Keep you eyes open for packaging that costs less energy to manufacture and can be recycled.

Collect-a-can

Raise funds for your school by taking part in one of Collect-a-Can's regional or national school competitions.

Cycle or walk short distances

Walk or cycle instead of riding by car. The exercise has health benefits as well.



Ride the bus or join a lift club

About 80% of people drive to work alone – help to change that by joining a lift club or using public transport.

Look after your car

Make sure your engine is tune-up, replace the air filter regularly and keep your tires inflated. All this will reduce your fuel consumption.

Plant a Tree

Trees convert carbon dioxide into oxygen; they provide shade and distribute humidity.
In some places they prevent soil erosion and help control floods.

Pay bills online

Do your banking online and eliminate the paper trail. You are not only saving trees, but cutting down on the transportation of the paper.

Word Search

See how many of the words listed below you can find in the puzzle.

Greenhouse, Ozone, Weather, Climate, Meteorology, Solar, Biosphere, Radiation, Fossil, Climatologist.

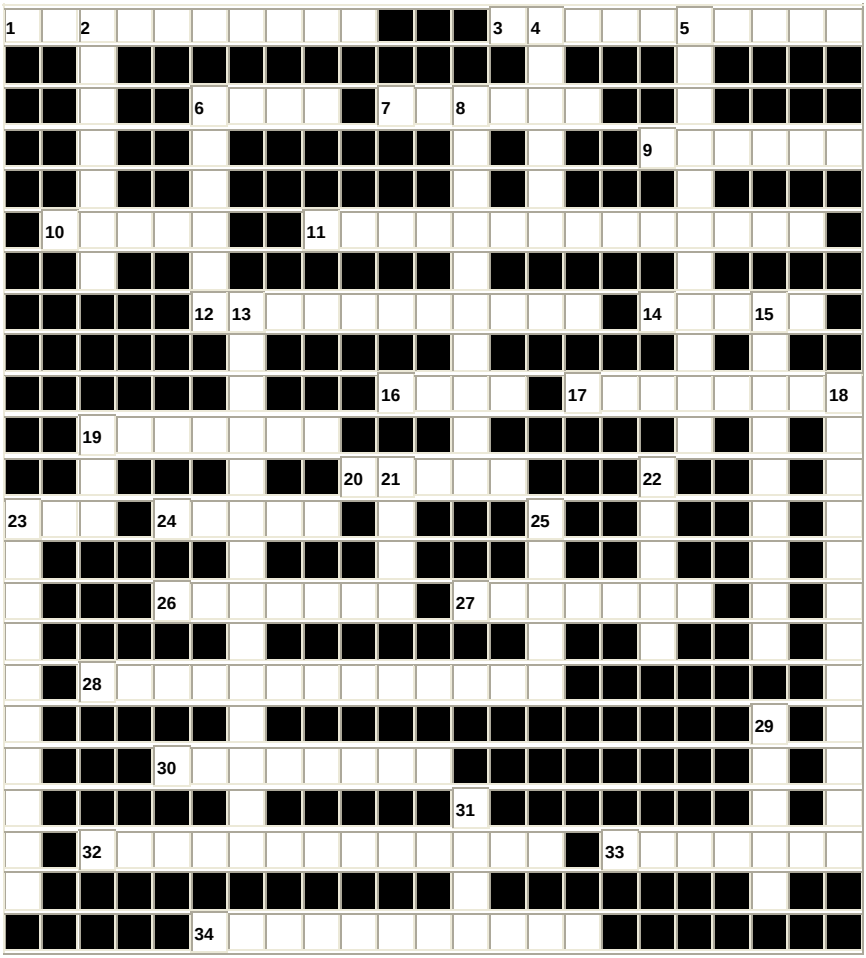
R L I V C B B F S I S W Q M S
A M W Q M B I O S P H E R E X
D E A P S I F P O M X Z E U F
I T L B W A N N Y A R P S I A
A E O E T A M I L C X T U W N
T O N Q M R U X M I O D O J H
I R D M H Y E Q A Z Y C H D O
O O S Q W G R H O M Y I N S M
N L B O L L P N T F T C E C L
F O Y T L R E C D A J D E D I
U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

Puzzle from: www.epa.gov/climatechange/kids/games/java/wordseek/index.html

Did you know that …

… South Africa is no 15 on the list of the "Top 50 countries by greenhouse emissions".
… if you travel 50 km per day by car, it would take 21 large trees to absorb all the carbon you produced.
… each household in South Africa generates approximately 1 ton of waste per year!
… if all households in South Africa recycled all their paper, we would save over 1 million cubic metres of valuable landfill space per year.
… over 3 billion cans – beer, soft drinks, cider, fruit juices and others – consumed in South Africa every year.
… every household in South Africa will save 4 Pine trees per year by recycling their old paper and cardboard.
… South Africa recycles approximately 18% of the virgin plastic it uses.
… transport is responsible for 14% of global greenhouse-gas emissions.
… 3% of farmland globally is planted with cotton, but the cotton farmers use approximately 25 % of all pesticides.
… 900 million trees become pulp and paper every year.
… recycling one glass bottle saves enough electricity to light a 100 watt bulb for four hours.
… it takes 4.5 trees to make the pulp used in disposable nappies for one baby over 2 years.
… research shows it could take 200-500 years to fully decompose a 'disposable' nappy. In comparison, a paper towel takes 2-4 weeks; a plastic bottle 450 years.
… one ton of glass is equivalent to 2532 bottles and …
… every ton of glass recycled saves about 605 kg of sand, 200 kg of soda, 200 kg of limestone and 70 kg of feldspar.

Global Warming Crossword



Crossword designed with HotPotatoes.

Global Warming Crossword clues

Clues: Across		Clues: Down	
1	Material worked into soil to support plant growth.	**2**	Make new from old.
3	Soil at or below the freezing point of water for two or more years.	**4**	Usable heat or power.
6	Method of movement.	**5**	The "F" in "CFL-bulb".
7	Increases the room temperature in your home.	**6**	Opening in a wall.
9	Ancient organism embedded and preserved in the earth's crust.	**8**	"Blanket" for Earth.
10	Abundant flow of water.	**13**	Appliance used to cool the air in a room. (2 words)
11	Biochemical process in plants that needs sunlight and carbon dioxide.		
12	Water in a barely visible or cloudy state. (2 words)	**15**	The Southern pole.
14	Large body of water.	**18**	Laughing gas. (2 words)
16	Something consumed to produce energy.		
17	Drifting organism that inhabits oceans, seas, and bodies of fresh water.	**19**	Vehicle to transport many people.
19	Vehicle with two wheels.		
20	Appliance used to dry clothes.	**21**	To be carried or conveyed.
23	A state of matter.		
24	Company responsible for "Paper Pickup".	**22**	An allotrope of oxygen in the upper atmosphere that absorbs damaging ultraviolet light.
26	The meteorological conditions, including temperature, precipitation, and wind, of a particular region.		
27	An opening in the Earth's crust, which allows hot, molten rock to escape from deep below the surface.	**23**	A structure, primarily of glass, in which temperature and humidity can be controlled.
28	Appliance used to keep food from spoiling.		
30	A site used for the disposal of solid waste.	**25**	2007 and 2008 have been declared as ??? years.
32	Persistent organic pollutants.		
33	GHG produced by animals and humans.	**29**	One form of renewable energy.
34	Supports your washing while it's drying. (2 words)	**31**	A fossil fuel.

Recycling Guide

The recycling Symbol - The Mobius Loop

The internationally-recognised recycling symbol is the 3 chasing arrows icon, the Mobius Loop. Each arrow represents an aspect of a successful recycling programme: collection, remanufacturing / reprocessing into a new product, and finally purchase by the consumer. The symbol is only supposed to be used on goods that are 'recyclable' or include 'recycled content'."

(from: Test Valley, Recycling Labels)

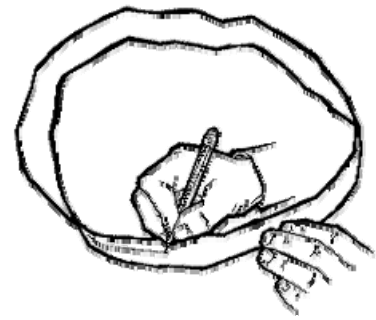
The Möbius Loop

The Möbius loop is a surface with only one side and only one boundary. It was discovered independently in 1858 by the German mathematicians Johann Benedict Listing and August Ferdinand Möbius (1790-1868). The Möbius strip is seen as a mathematical marvel of simplicity and singularity.

Try this:

Cut a 5-8 cm strip lengthwise from an old newspaper. Hold the strip out straight, give it a half-twist (180°) and attach the two ends together. Take a pen and carefully draw a line along the centre of the strip. Where do you end up? Is the line drawn on the inside or outside of the paper? Now cut the strip along the line you drew.

How many chains do you get?



What can be recycled?

Paper

Today almost all paper can be recycled, although it is not economically viable to recycle papers coated with plastic or aluminium foil, waxed papers or pasted and gummed papers. Paper fibre can be recycled about 7 times before it gets too small to be useful.
Collect all your paper; newspapers, magazines, photocopies, letters, computer printouts, etc. Most places will also accept phone books, cereal and shoe boxes, as well as corrugated cardboard. Keep the paper and cardboard clean and dry until you take it to be recycled.

Glass

Glass makes up a large component of household and industrial waste but it is worthwhile recycling since recycling uses less energy than manufacturing glass from sand, lime and soda. Every tonne of glass used for producing new glass items saves 315kg of carbon dioxide. Glass can be recycled indefinitely as its structure does not deteriorate when reprocessed.
Glass bottles must not be mixed with other types of glass such as windows, light bulbs, mirrors, glass tableware, Pyrex or auto glass.
Glass is normally sorted by colour for recycling; clear glass is the most valuable and broken glass is hard to sort.

Metal

For recycling purposes, metals are divided into ferrous and non-ferrous metals. Ferrous metals, iron and steel, are the world's most recycled materials, since they are among the easiest materials to recycle. They are easily separated from other waste using magnets.
Aluminium is the best known non-ferrous metal that is recycled in large quantities. An aluminium can is 100% recyclable; every time it is recycled, it saves enough energy to watch television for about three hours (compared to mining and producing a new can).
Collect empty metal cans, caps, lids, bands and foil and take them to be recycled.

Plastics

Before recycling, plastics are sorted according to their resin identification code.

Recycling No	Abb.	Polymer Name	Uses
	**PETE or PET**	Polyethylene Terephthalate	Recycled to produce polyester fibres, thermoformed sheet, strapping, soft drink bottles.
	**HDPE**	High-Density Polyethylene	Recycled to become various bottles, grocery bags, recycling bins, agricultural pipe, base cups, car stops, playground equipment, and plastic lumber.
	**PVC or V**	Polyvinyl Chloride	Recycled to become pipe, fencing, and non-food bottles.
	**LDPE**	Low-Density Polyethylene	Recycled to become plastic bags, various containers, dispensing bottles, wash bottles, tubing, and various molded laboratory equipment.
	**PP**	Polypropylene	Recycled into auto parts and industrial fibers.
	**PS**	Polystyrene	Recycled into a wide range of products including office accessories, cafeteria trays, toys, video cassettes and cases, insulation board and expanded polystyrene products (e.g. Styrofoam).
	**Other**		Other plastics, including acrylic, polycarbonate, polylactic acid , nylon and fiberglass.

Table from Wikipedia

And more

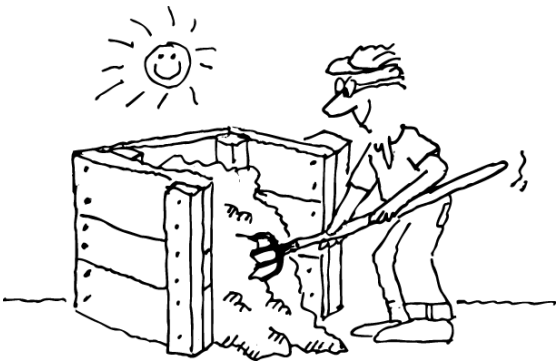
Batteries

Lead-acid batteries, like those used in cars, are relatively easy to recycle and many new lead-acid batteries contain a high percentage of recycled material.

Printer ink cartridges & toners

The ink reservoir of toner and ink cartridges can be refilled. This method of recycling is highly efficient as there is no energy spent on melting and recreating the recycled object itself.

Start a compost heap



"It is estimated that food and yard waste comprises over 30% of our solid wastes. Composting converts waste, leaves, kitchen scraps and garden wastes, into a valuable product which, when used in the garden, results in healthier plant growth when added to garden soil."

Text from: Thomas Richard, Robert Kozlowski, Nancy Dickson and Roger Kline, July 1989
Online at http://compost.css.cornell.edu/HomeCompostingSlides.ppt

All the Rest …

Computers, eyeglasses, furniture, household goods, clothes, blankets, etc. There are many needy people in our country. Donate the things you no longer use or want to charity. Or take them to one of the many second-hand shops.

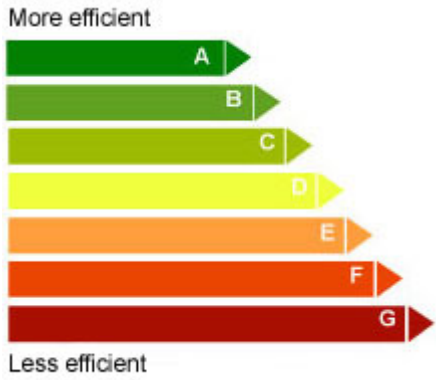
Appliance labeling

Energy Star

Energy Star The label that is used to indicate energy efficiency is similar to the label used in European Union (EU) member states. The only difference being that the EU flag is replaced by the energy star, the DME symbol for the Energy Efficiency Initiative. All products that are legally imported or produced in South Africa carry the Energy Star, which will be visible in the bottom right corner of the appliance.

Appliances will also carry a label indicating energy consumption.

Appliances grading



Appliances will be graded using capital letters from "A" to "G" to indicate the energy consumption of a product. A product with the letter "A" indicates it uses energy or electricity most efficiently, while a product with a "G" grading indicates the poorest performing product in that category of products, such as refrigerators. The grading A-G is determined by the South African National Accreditation System (SANAS) and the South African Bureau of Standards (SABS).

Information from the Department of Minerals and Energy website. Viewed online on 17 May 2007 at: http://www.dme.gov.za/energy/app_faq.stm

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- http://wyrebc.gov.uk/page.aspx?ImgID=1900
- http://www.newtonsapple.tv

Recycling Symbols

Can you identify these logos and symbols?