

RECYCLING

What is Recycling?

Recycling is the process of making or manufacturing new products from a product that has originally served its purpose. If these used products are disposed of in an appropriate, environmentally friendly way, the process of recycling has been set in motion.

“Recycled” and “Recyclable” may sound alike, but they mean very different things.

Recycled: If a label says a product is ‘recycled’, check for more details. Unless the product or package is made of 100% recycled materials, the label must tell you how much is recycled.

Recyclable: Means that it can be collected and used again or can be made into other useful products. A ‘recyclable’ product is a good choice for the environment only if your community offers a recycling programme for that material and you follow their rules for recycling.

Biodegradable: Biodegradable materials break down into elements found in nature when they are exposed to air or moisture.

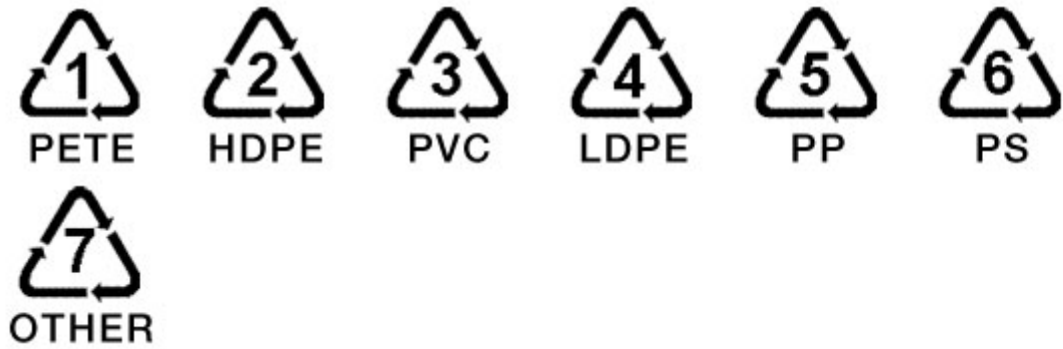
Photodegradable: Photodegradable materials disintegrate when exposed to enough sunlight.

Eco-safe: (or environmentally friendly)



Fig: Symbol of Recycling

There are dozens of variants of this image worldwide. The example shown above is the most common. It was created by Gary Anderson in 1970. Each of the three arrows can represent one step, in a three-step process that forms a closed loop, the recycling loop. The first step represents collection of materials to be recycled. The manufacturing process (converting into new products) is the second step. The third step is the actual purchase and use of the products made from recycled materials.



The number inside the symbol denotes the type of plastic resin from which the item was made. The number and the corresponding type of plastic are shown above. When the letter “R” is prefixed with the acronym of the names of plastics, means “already recycled” For example “RPETE”.



When a percentage is indicated within the symbol, that percentage of the product has been made from recycled materials.



The “Glass Packaging Institute” (GPI) has also developed a ‘recyclable’ symbol for use on glass packaging that can be recycled.



Fig: A sign at Mahabalipuram

ADVANTAGES OF RECYCLING

🌿 **Recycling saves energy:** For the manufacture of new products from 'virgin materials', the amount of energy needed is much higher than using recycled materials. The energy and resources that are expended in the transportation of 'virgin' materials is also saved.

🌿 **Recycling preserves natural resources:** When the raw materials used in the manufacture of new goods are derived from the core elements of old products, there is an enormous saving of limited and finite natural resources. **"Instead of cutting down more trees to produce more paper, the trees can be saved by using old newspapers to produce new papers"**.



🌿 **Recycling of 1 ton of paper** saves 17 mature trees, 7,000 gallons of water, 1 cubic metre of landfill space, 2 barrels of oil, and 4,000 kilowatt hours of electricity. This is enough energy to power the average Indian home for 10 months.

🌿 **Recycling saves the space that is used for waste disposal:** A major portion of the landfill space in use today is filled up with materials that could otherwise have been recycled.

With landfill space at a premium today, any reduction in the waste that needs to be

Recycling a ton of paper saves about 24 trees, which absorb 250 pounds of carbon dioxide from the air each year, reducing the global greenhouse effect.

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discarded and will occupy space in these landfills benefits the environment. Moreover, hazardous waste that disposed off in landfills can lead toxic or corrosive chemicals into the environment.

🌿 Recycling tin-cans saves 74% of the energy used to make them. Recycling one aluminium-can saves enough energy to run a 100 watt bulb for 20 hours, a computer for 3 hours, and a TV for 2 hours.

🌿 Water recycling decreases the extraction of water from sources that may be dwindling and may stop being viable as habitats for valuable and endangered wildlife.

🌿 Recycling of water can decrease the discharge of effluents that may damage and pollute the ecosystems of the sensitive bodies of water.

Table: Environmental Benefits of Recycling

Materials	Energy Savings	Air pollution savings
Aluminium	95%	95%
Cardboard	24%	-
Glass	5-30%	20%
Paper	40%	73%
Plastics	70%	-
Steel	60%	-