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RESEARCH ARTICLE

An overview of Eco friendly products – Recycling

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INTRODUCTION

In simple language, what is recycling about is simply giving old or used things a new lease of life, by making new things out of the old materials. Recycling is a key and third component of the "Reduce, Reuse, and Recycle" waste hierarchy, which comprises three elements, reduce, reuse and recycle. Unlike reducing or re-using, recycling involves the processing of the old or used materials. The old or used materials are broken down into their basic elements (eg. fibre in paper), which are then used as the raw materials for other fresh and new items. In turn, the recycling processes for different materials differ.

The recycling process

The recycling process involves a series of activities, including collecting the recyclables, sorting and processing the recyclable materials into raw materials such as fibers, and manufacturing new products out of these raw materials. Subsequently, the purchasing of products made from recycled materials creates a circle or loop, and is critical to the overall value and success of recycling.

The process of waste paper recycling involves mixing used paper with water and chemicals to break it down. It is then chopped up and heated, which breaks it down further into strands of cellulose, a type of organic plant material; this resulting mixture is called pulp, or slurry. It is strained through screens, which remove any glue or plastic that may still be in the mixture then cleaned, de-inked, bleached, and mixed with water. Then it can be made into new recycled paper.

Factors for success in recycling

The following factors describe what is recycling success determined by. These factors are very important if our recycling efforts are to make a difference.

1. Products designed for recycling – For recycling to be possible in the first place, products must be designed with recycling or environmental protection in mind.

2. **Recyclable collection** – To ensure that there is a constant supply of recyclables for the recycling process, recyclables need to be systematically collected from their sources (eg. households, schools, etc). They need to be separated from trash and other wastes to prevent contamination, and sorted by type of material to facilitate processing.
3. **Processing** – The recyclable materials collected need to be sorted by the type of material to facilitate processing, and need to be broken down into its basic elements, and then be reused as raw materials to produce new products.
4. **Demand for recycled products** – The “Recycling Cycle” will only be completed when the new products are put to use. As much as it is important to send your recyclable items for recycling, it is also important to use recycled products to ensure that recycling becomes a economically viable activity within your community.

Recycling facts

Recycling is an excellent way of saving energy and conserving the environment.

- 1 recycled tin can would save enough energy to power a television for 3 hours.
- 1 recycled glass bottle would save enough energy to power a computer for 25 minutes.
- 1 recycled plastic bottle would save enough energy to power a 60-watt light bulb for 3 hours.
- 70% less energy is required to recycle paper compared with making it from raw materials.
- Up to 60% of the rubbish that ends up in the dustbin could be recycled.
- The unreleased energy contained in the average dustbin each year could power a television for 5,000 hours.
- The largest lake in the Britain could be filled with rubbish from the UK in 8 months.
- On average, 16% of the money you spend on a product pays for the packaging, which ultimately ends up as rubbish.
- As much as 50% of waste in the average dustbin could be composted.
- Up to 80% of a vehicle can be recycled.
- 9 out of 10 people would recycle more if it were made easier.

Advantages of Recycling

1. Protects Environment: The foremost benefit of recycling is that it helps in protecting the environment in the most balanced manner. While many trees are cut down continually, recycled paper made from certain trees is re-used repeatedly to minimize felling/ deforestation. With re-cycled paper as an outstanding example, a number of other natural resources can be reused this way.

2. Reduces Energy Consumption: A large amount of energy is consumed by processing raw materials at the time of manufacture. Recycling helps to minimize energy consumption, which is crucial for massive production, such as mining or refining. This also makes the production process very cost-effective and beneficial for manufacturers.

3. Reduces Pollution: Industrial waste today is the main source of all types of pollution. Recycling of industrial products such as cans, chemical, plastics helps to cut down pollution levels considerably, as these materials are re-used, instead of throwing them away irresponsibly.

4. Reduces Global Warming: Recycling helps to alleviate global warming and its ill effects. Massive waste is burned in heaps which produces large amount of greenhouse gas emissions such as CO₂ and CFC's. Recycling ensure that the burning process is minimized and any waste is re-generated as a useful product with no or minimal harmful impact on the environment. Recycling produces less greenhouse gases as industries burn fewer fossil fuels for eco-friendly products.

5. Judicious and Sustainable use of Resources: Recycling promotes judicious and sustainable use of resources. This process ensures that there is no discriminate use of any material when available in plenty in the present. Recycling is encouraged at all levels, starting from school to corporate offices and at international levels. This means we can preserve all precious resources for our future generation, without any compromise in the present.

6. Conserves Natural Resources: If old and used materials are not recycled, the new products are made from extracting fresh raw materials from beneath the earth through mining and extraction. Recycling helps in conserving important raw materials and protects natural habitats for the future. Conserving natural resources such as wood, water and minerals ensures its optimum use.

7. Reduces Amount of Waste to Landfills: Recycling old and waste products into new products reduces the amount of waste that go to landfills. This helps in reducing water and land pollution as landfills are a major source in contributing to destruction of natural environment. Recycling programs keep 70 tons of waste from being deposited into landfills every year.

8. Create Green Jobs: Recycling is good for the environment and apart from that it also creates green jobs. According to the U.S. Bureau of Labor Statistics, green goods and services accounted for 3.1 million jobs in the United States by 2010.

Disadvantages of Recycling

1. Not always Cost Effective: Recycling is not always cost-effective. Sometimes, there may be a need to establish separate factories to process reusable products. This may create more pollution as they would go under the process of cleaning, storage and transportation.

2. Recycled Products May not Last for Long: Recycled products are always not of durable quality. Such items are mostly made of trashed waste, picked up from heaps other waste products which are of fragile or overly used. For this reason, recycled products are cheap and last for a shorter period.

3. Unsafe and Unhygienic Recycling Sites: Recycling sites are often unsafe and unhygienic. Places where all sorts of waste is dumped are conducive for debris formation and spread of disease and other dangers caused by harmful chemicals and waste. This not only causes widespread pollution but is harmful for dedicated people who recycle such products.

4. Not widespread on Large Scale: Although recycling is an important step to minimize pollution, unfortunately this process is just a small part of long-term success. Recycling often occurs at a small scale- homes or schools and has failed to be useful at a large level such as at industries or holistically at a global stage. Saving paper at schools cannot be compared to oil spills or massive tree felling at an industrial level.

5. High Initial Cost: Setting up new recycling unit involves high cost. This huge cost can come up as a part of acquiring different utility vehicles, upgrading the processing facility, educating residents by organizing seminars and other programs, disposing of existing waste and chemicals etc.

IMPORTANCE OF RECYCLING

- To Make Environment Clean
- Conservation of Materials
- To Save Energy
- Reduce Garbage in Landfills

Recycling is good for the environment, in the sense, we are using old and waste products which are of no use and then converting them back to same new products. Since we are saving resources and are sending less trash to the landfills, it helps in reducing air and water pollution. Energy saving is important if we are to reduce the future effects of global warming. If we recycle one aluminum can, we are able to save enough energy to run a TV for around 3 hours. This will obviously depend on the energy consumption of your TV, but it gives you a great idea as to just how much energy can be saved during the process of recycling products.

Eco green living

Eco-Green Living is about living life, as an individual as well as a community, such that it is sustainable for the earth.

In essence, living a green life entails the following principles:

- conserve resources
- conserve energy
- reduce waste
- reduce pollution and the release of harmful substances into the environment
- protect the earth's ecological balance with other living things.

Eco green living for homes

There are many things that we can do at home for living a green lifestyle.

Beyond adopting the Reduce Reuse Recycle principle, we can also adopt energy saving practices. There are many energy efficient practices and appliances that we can use to turn your home into a green, energy efficient home. we can also help to reduce pollution by reducing the use of harmful chemicals and substances in our home, and using eco friendly home cleaners and other eco-friendly products in our daily needs. we can also help introduce more plants and trees into our environment and encourage others to do the same. Grow our own green garden using green gardening principles, or even plant trees in our name.

Green Technology:

The term "technology" refers to the application of knowledge for practical purposes.

The field of "green technology" encompasses a continuously evolving group of methods and materials, from techniques for generating energy to non-toxic cleaning products.

The present expectation is that this field will bring innovation and changes in daily life of similar magnitude to the "information technology" explosion over the last two decades. In these early stages, it is impossible to predict what "green technology" may eventually encompass.

The goals that inform developments in this rapidly growing field include:

Sustainability - meeting the needs of society in ways that can continue indefinitely into the future without damaging or depleting natural resources. In short, meeting present needs without compromising the ability of future generations to meet their own needs.

"Cradle to cradle" design - ending the "cradle to grave" cycle of manufactured products, by creating products that can be fully reclaimed or re-used. Source reduction - reducing waste and pollution by changing patterns of production and consumption.

Innovation - developing alternatives to technologies - whether fossil fuel or chemical intensive agriculture - that have been demonstrated to damage health and the environment.

Viability - creating a center of economic activity around technologies and products that benefit the environment, speeding their implementation and creating new careers that truly protect the planet.

CONCLUSION

Recycling is important in today's world if we want to leave this planet for our future generations. It is good for the environment, since we are making new products from the old products which are of no use to us. Recycling begins at home. If we are not throwing away any old product and instead utilizing it for something new then actually recycling. When we think of recycling we should really think about the whole idea; reduce, reuse and recycle. "We've been careless up to this point with the way we've treated the Earth and it's time to change; not just the way we do things but the way we think".

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