

# THEMES WASTE REDUCTION

Schools accumulate tons of waste—from paper and computers to food and books. By learning how to properly handle this waste, school officials not only have an opportunity to greatly influence the future of their school, and students, but they can also have a significant impact on the environment. Every day, school officials struggle to find time to get everything done. Hence waste reduction efforts and environmental protection must be made feasible and practical for students and schools.

## The Four Rules of Waste Reduction

- **Reduce**—Purchasing, consuming, and throwing away less. Source reduction actually prevents the generation of waste in the first place, making it the most preferred method of waste management.
- **Reuse**—Reusing items as many times as possible, or repairing, donating, or selling them. Reuse is even better than recycling because items do not have to be reprocessed before they can be used again.
- **Recycle**—A series of activities that includes collecting recyclable materials that would otherwise be considered waste, sorting and processing recyclables into raw materials such as fibers, and manufacturing the raw materials into new products. Recycling prevents the need to harvest new raw materials from the Earth. At the school level, you can prioritise sorting and disposing them in specific recycling bins.
- **Buy Recycled**—Whenever possible, purchasing products made of recycled materials.

## Benefits of Waste reduction

There are many benefits to implementing a waste - reduction programme in your school.

- **Protect the Environment**
- Preventing the use of excess materials, reusing materials, recycling, and buying recycled content products reduce a school's impact on the environment by:
- Saving energy (by using recycled content, which takes less energy to produce new products).
  - Mitigating climate change by reducing green-house gas emissions (using less energy burns fewer fossil fuels, which in turn impact greenhouse gas emissions).
  - Reducing the need for raw materials to make new products.
  - Decreasing the amount of material put into landfills.

- **Get Educated**

## Environmental Education Opportunities

By implementing waste reduction programmes in schools, teachers and administrators have an opportunity to teach their students about the importance of reducing their environmental ecological footprint and how each of our decisions impacts the environment. This also gives students an opportunity to learn about economics (the impact of supply and demand), current events, climate change, and environmental laws.

## Service-Learning Opportunities

School waste reduction programmes also allow for service-learning opportunities. Service-learning opportunities are hands-on experiences that go beyond what is learned in the classroom. For example, students might participate in community waste collection days or share waste reduction tips with neighbours. Students gain new skills and a sense of civic responsibility by working directly with the community. Additionally, service-learning enhances students' communications, team-building, critical thinking, and decision-making skills.

## Become an Environmental Steward

Students involved in waste reduction activities can be environmental stewards for the entire community, bringing the idea of waste reduction home, building a stronger community through outreach.

## Save money

Reducing waste production means consuming less. And consuming less means you save money.

## Important Note:

Every school works under unique conditions...hence something that works in one school need not be applicable in another school. Every school will have to identify what works best for them. This guide will be useful to plan out a programme that fits your school.

Another critical factor to be kept in mind is communication among the parties involved in managing waste – and this includes teachers, students, school cleaning staff, parents, school administrators - this will be crucial in sustaining a successful waste reduction programme.

## Setting up a Waste Reduction Programme in your school

As you consider various waste reduction options in your school, it will be useful to first identify your school's overall capabilities that will be useful to help meet your goals. Conducting a waste assessment will show you the trends in the types and amount of waste your school generates. Also keep in mind that you might run into issues (e.g., staffing requirements, programme support) specific to your school that need to be resolved before you can begin. Depending on the nature of your school, you will have different needs and considerations, such as

- Deciding who will handle the day-to-day tasks of your programme.
  - Are the teachers, school staff, and student volunteers able to commit enough time to implement an effective programme?
  - Will you need student volunteers to run the programme or will any staff member be able to take up this responsibility?
  - Can you tap into existing school volunteer networks, such as the Parent Teacher Association (PTA)?
- Considering how students will be involved in the waste reduction programme.
- Determining how the waste reduction programme will be incorporated into school curricula.
- Identifying and quantifying your school's waste by determining who will be responsible for conducting a waste assessment.
  - What materials do you generate in your school?
  - How much does your school generate these materials?
- Identifying the scope of the waste reduction programme.
  - Which materials will your school collect for reuse and recycling?
  - Will you initiate a programme by recycling one or two materials and introducing more materials over time, or will you collect several materials immediately?
- Establishing how you will collect materials.
  - Will you hire a waste management company to pick up your recyclables?
  - Will you use services of the waste management company provided by EWS-WWF?
  - How frequently will materials be collected from your school?
- Identifying how much space is available to store recyclables inside your school.
  - Is additional storage space available outside of your school?
- Tracking the amount of materials collected
  - Will students be involved in weighing the materials?
  - Will the hired company weigh the materials?
  - How will the weight records be obtained?
  - Who will be responsible for these records?
- Considering how you will pay for the costs associated with the programme, such as material collection fees, recycling containers, etc.
- Determining how you will encourage students, school staff, and volunteers to participate.
- Deciding how you will have the waste reduction programme evaluated.
  - How often will it be assessed?
  - Who will perform the assessments?
  - How will the results be tracked?

## Check out these waste reduction ideas!

### Remember reducing waste production should be your priority

- Print on both sides of the paper
- Scrap paper can be reused to take notes / memo pads
- Use the Internet for research assignments
- View information electronically instead of printing hard copies
- Reduce handouts distributed
- Have a waste-free lunch day

### Reuse/Donation ideas

- Reuse school supplies, such as folders and binders
- Donate furniture or electronics to a local charity
- Use old magazines for art projects
- Use compostable trays, utensils, and dishware in the cafeteria

### Recycling Collection ideas

- Hold a recycling competition among classes
- Place recycling bins in convenient locations

## RECYCLING FACTS AND FIGURES

When This Material Is Recycled...	It Can Be Turned Into...	Energy Savings from Recycling	Greenhouse Gas Emission Reductions from Recycling
Aluminum	New aluminum cans, small appliances, lawn furniture—in fact, almost everything aluminum	Recycling one aluminum beverage can could save enough energy to run a 100-watt bulb for 20 hours, a computer for three hours, or a TV for two hours.	Recycling 10 tons of aluminum saves as much greenhouse gas emissions as preserving more than 1.1 acres of forest from deforestation
Glass	Glass jars and bottles, fiberglass insulation, tiles, counter-tops, sand for ashtrays and sand traps	The energy saved from recycling one glass bottle will operate a 100-watt light bulb for four hours.	Recycling 10 tons of glass saves as much greenhouse gas emissions as preventing the use of more than eight barrels of crude oil.
Paper	Newspaper, tissue products, paper towels, notebook paper, envelopes, copy paper and other paper products, insulation, and molded packaging	By recycling one ton of paper, we save enough energy to heat an average home for six months.	The greenhouse gas emission reductions from recycling 10 tons of mixed paper are comparable to preventing the use of 94 barrels of crude oil.
Plastic	Fiberfill (for ski jackets, cushions, sleeping bags, etc.), plastic containers and bottles, recycling bins, fleece, carpet, car parts, tennis ball felt, pallets, benches, fences, building materials, twine, and thermoformed parts	The energy saved by recycling one plastic bottle will power a computer for 25 minutes.	Recycling 10 tons of PET plastic saves as much greenhouse gas emissions as removing more than three cars from the road for one year.
Steel	Steel cans, building materials, tools—in fact, almost everything steel	By recycling steel, the steel industry saves enough energy in one year to electrically power 18 million homes for one year.	Recycling 10 tons of steel saves as much greenhouse gas emissions as growing 470 tree seedlings for 10 years.

## Handling Contamination OR Mixing of wastes

Contamination is a common problem in the recycling programmes. The two most common forms are:

- Recyclable materials thrown in the trash rather than the collection bins.
- Incorrect items thrown into collection containers (e.g., trash in the recycling bins or aluminum cans in the paper recycling bins).

A school's strongest weapon against contamination is education. Make sure all containers are clearly labeled. Hang signs describing your recycling programme and listing which materials are accepted in your programme. Regular monitoring can also help remedy this problem. Be sure to tell students and staff if you find contamination problems or if you find recyclables thrown away in trash cans.

(This guide has been adapted from the US Environment Protection Agency's 'Tools for Waste Reduction' document).