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Module 3 by European Learning Centre

# Sharing vs Waste





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# TABLE OF CONTENTS

Introduction

Module Objective - Learning Outcomes - Topics

3.1 What are the main wastes in a school system

3.2 How to identify waste in your school

3.3 How sharing habits can reduce wastes

3.4 Possible actions to develop to reduce wastes

3.5 Sharing actions list to be adopted in a school

3.6 App and tools for sharing habits

Key takeaway



# Introduction

In this module, we will explore the different aspects of sharing vs waste. This includes waste identification, waste management, sharing activities and their implications in the context of a school system.

Schools play a very important role in shaping the behaviors and future of our next generations. By introducing this topic and promoting waste reduction and sharing habits we have the power to create a more sustainable and environmentally conscious community that promotes the proper use of resources. Sharing offers a multitude of benefits, especially when we speak of waste reduction. When we share resources, we can optimize the available resources, reduce the need for excess production and consumption, while generating less waste for our society.

Throughout this module, we will explore the concept of sharing as a powerful tool for waste reduction in schools. We will delve into practical strategies, actions, and tools that can be employed to facilitate resource sharing in schools. By embracing the principles of sharing, we can contribute to the broader mission of waste reduction, environmental preservation, and the creation of a more sustainable society.



# Module Objective

# Learning Outcomes

# Topics

- To equip participants with knowledge of what are the types of wastes in school system and identify these in their schools
  - Demonstrate how sharing habits can promote a reduction of waste and promote these actions
  - Introduce relevant apps and tools for sharing habits
- 
- Defining and identifying the main types of waste in schools
  - Explain concepts of sharing economy, sharing habits and the importance of promoting action to reduce waste in schools
  - Practical skills to utilize tools available for the reduction of waste
- 
- Types of waste in schools
  - How to identify waste in schools
  - Benefits of sharing habits for reduction of waste
  - Tools for promoting waste reduction







### 3.1 What are the main wastes in a school system?



## 3.1 What are the main wastes in a school system?



In the busy environment of a school system, various types of waste are generated on a daily basis. From classrooms to cafeterias, administrative offices to sports facilities, waste is an inevitable byproduct. Understanding the main waste in a school system is crucial for implementing effective waste management strategies and promoting a culture of sustainability.

In this section, we will explore the different categories of waste commonly found in schools and examine their environmental impact. Gaining insight into the areas of waste creation, we can identify areas for improvement and implement targeted solutions to reduce waste generation.

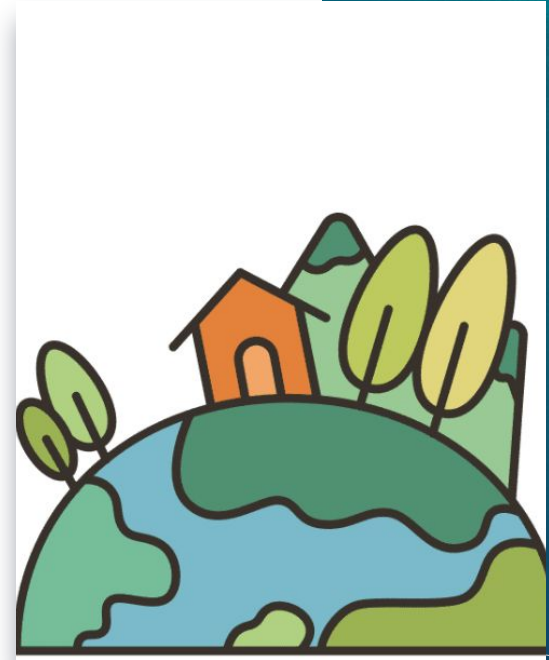
By acknowledging and understanding where the waste comes from, schools can develop targeted waste reduction strategies and educate students and staff about the importance of responsible use of resources. Implementing sustainable practices of sharing and a culture of care towards the environment will not only reduce waste in schools but also create valuable lifelong habits in the school community.

Primary and secondary schools generate around 67kg of waste per student per academic year. There are many different kinds of wastes that are created by schools.

### **Types of wastes**

1. Paper waste
2. Food Waste
3. Energy Waste
4. Resource Waste
5. Plastic Waste
6. Water Waste
7. Hazardous Waste

We will go through all of these types of waste





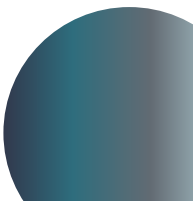


## Paper waste



Paper waste in schools is a pressing issue that demands attention. Schools consume a significant amount of paper through worksheets, handouts, administrative documents, and printouts. Unnecessary printing, excessive photocopying, and improper disposal contribute to paper waste.

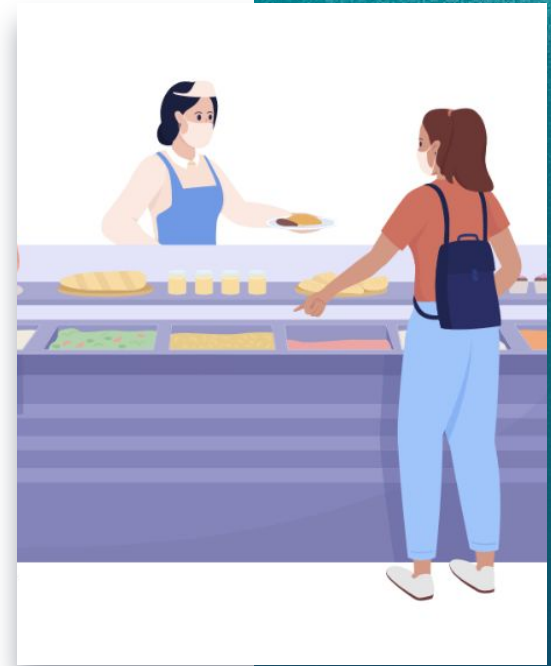
This constant use of paper comes at a great cost to the environment. The production of paper contributes to deforestation, which leads to the destruction of natural habitats, loss of biodiversity, and disruption of ecosystems.



## Food waste

Cafeterias and lunchrooms are a major source of food waste, these include uneaten meals, spoiled or expired food, and leftovers. This is an important issue that requires our attention.

Schools serve thousands of meals to students every day around the world, which results in a large proportion of this going to waste. There are many factors which contribute to food waste. Cafeterias in schools often give more food to students that they will not consume, and it ends up being wasted. Another common type of waste is that of non-consumed food that should be able to be donated, but due to certain policies in some countries, it ends up going to waste.



## Energy waste

Energy waste in schools is a prevalent issue, resulting in unnecessary expenses and environmental impact. Common culprits include excessive lighting in unoccupied areas, inefficient heating, ventilation, and air conditioning systems, and misuse of electronic devices. Lack of awareness about energy conservation exacerbates the problem.

To address this, schools can implement energy-efficient lighting, upgrade their lighting systems, improve insulation, and promote energy-conscious behavior through education. By reducing energy waste, schools can cut costs, demonstrate environmental responsibility, and provide valuable sustainability lessons to students.



## Water waste

Water waste in schools is a pressing concern that affects both sustainability and conservation efforts. It encompasses various practices that lead to unnecessary water consumption and inefficiency. Examples include leaky faucets, running taps, and improper irrigation systems. Excessive water usage not only strains local water resources but also increases utility costs.

By implementing water-saving measures such as repairing leaks, installing water-efficient fixtures, and promoting responsible water use habits, schools can significantly reduce water waste. Educating students about the importance of water conservation and involving them in water-saving initiatives promotes a culture of environmental responsibility and prepares them to become aware of this vital resource.





## Plastic waste

Plastic waste in schools poses a significant challenge, that negatively impacts the environment. Disposable plastic items, such as water bottles, food packaging, and single-use utensils, contribute to the problem. Improper disposal and lack of recycling infrastructure led to plastic pollution in landfills and oceans.

Schools can combat this issue by promoting reusable water bottles, encouraging waste segregation, and implementing recycling programs. Educating students about the environmental consequences of plastic waste and promoting alternative, eco-friendly materials can help cultivate a plastic-conscious culture in schools, reducing waste and protecting the planet for future generations.





## Hazardous waste

This kind of waste, although it is one of the wastes less created by schools, is really important as it poses a great threat to both human health and the environment. It encompasses various materials such as chemicals, batteries, fluorescent light bulbs, and electronic waste. Improper storage, handling, or disposal of these hazardous substances can result in pollution, contamination, and potential health risks.

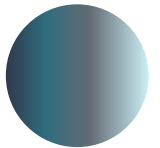
To address this issue, schools must establish proper waste management protocols, including safe storage, labeling, and disposal methods. Educating students, staff, and faculty about the importance of handling hazardous waste responsibly, providing training on proper disposal procedures, and implementing recycling and disposal programs ensures a safe learning environment and reduces the negative impact on the ecosystem.





## 3.2

# How to identify waste in your schools



## 3.2 How to identify waste in your schools



In today's world, where environmental sustainability is increasingly crucial, schools have a significant role to play in promoting responsible resource management. One key aspect of this endeavor is identifying and addressing waste within educational institutions. Waste comes in various forms, which we have previously described.

By recognizing and addressing these areas of waste, schools can not only reduce their ecological footprint and reduce their creation of waste, but also teach valuable lessons about environmental responsibility to students.

In this part of the module, we will talk about different ways in which you can identify waste in schools.

## Waste Investigation

Conduct a waste investigation to assess the type and quantity of waste generated in your school. This involves examining trash bins, recycling bins, and conducting surveys or interviews with staff and students. By analyzing the waste stream, you can identify patterns, areas of excess, and opportunities for improvement.

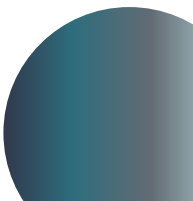
This could also be a great opportunity for your students to join in and do this investigation with them as a part of their course or just as extracurricular activity to get them involved in waste management.





## Energy Monitoring

Monitor energy consumption in your school by examining areas with excessive lighting, checking systems for efficiency, and tracking the usage of electronic devices. This can be done through energy meters or smart monitoring systems. Identifying areas of energy waste will help you develop strategies to reduce consumption and promote energy efficiency. It is also important to make sure your school is using the appropriate energy efficient models in their technological devices and lighting.





## Material and Supply Tracking

Keep track of material and supply usage, such as paper, stationery, and other resources. This can be done through regular inventory checks and tracking systems. By monitoring usage patterns, you can identify areas of overconsumption and implement measures to reduce waste, such as promoting digitalization or implementing recycling programs.

This works for the schools that offer supplies to their students, those schools whose students bring their own supplies have to promote sustainability values and create awareness of the importance of taking care of supplies.





## Plastic Waste Assessment

Evaluate the use of single-use plastic items in your school, such as water bottles, food packaging, and plastic utensils. Assess the quantity and frequency of plastic waste generated and explore alternative options like reusable bottles, eco-friendly packaging, or encouraging students to bring their own utensils. Implementing proper waste separation and recycling programs can also help reduce plastic waste.

Involving students in this process is a great way to do this activity and make them feel like they are part of this, and in a way making them responsible for this.



## Water consumption Analysis

Monitor water consumption in your school by regularly inspecting faucets, toilets, and irrigation systems. One essential way to identify extra water consumption is by monitoring and inspecting faucets, toilets, and irrigation systems in the school. This way you can identify if there are any leaks, excessive or inefficient use of water.

To facilitate this inspection process, schools can utilize various tools and techniques, such as water meters or monitoring systems. Water meters provide accurate measurements of water consumption, allowing school administrators to track usage patterns and identify any abnormal spikes or irregularities. By monitoring water consumption regularly, it becomes easier to detect and address potential issues promptly.

Additionally, implementing advanced monitoring systems can offer real-time insights into water usage within the school. These systems utilize sensors and data analysis to provide detailed information on water flow rates, pressure levels, and usage patterns.

By using this technology, schools can proactively identify areas of high water consumption or potential leaks, and in turn promote intervention and resolution.

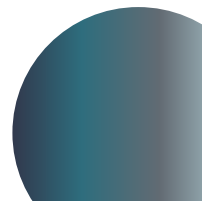




## Hazardous waste management

Ensure proper storage, handling, and disposal of hazardous waste materials in your school. Conduct regular inventories to identify chemicals, batteries, or electronic waste that may require special handling. Provide training and awareness programs for staff and students to educate them on proper disposal after science classes or different scenarios where using this hazardous waste is necessary.

Identify which hazardous material can be changed or modified to a better, more sustainable, material.



# Activities with students to identify waste in schools

## **Waste Sorting game**

Provide a set of pictures or actual waste items, such as paper, plastic, metal, and organic waste. Ask the students to sort these items into the correct categories. As they participate, explain the importance of proper waste segregation and the impact of different types of waste on the environment. This activity not only helps children recognize waste but also educates them about responsible waste management.

## **Waste Walk and observation**

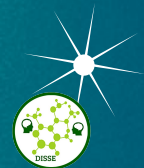
Take the young kids on a waste walk around the school premises. During the walk, encourage them to observe and identify areas where waste is generated or improperly managed. It could be trash bins overflowing with recyclable items or unattended paper waste. Engage the children in discussions about the observed waste and ask them to suggest ways to reduce or manage it effectively. This activity promotes active engagement and empowers young kids to become waste-conscious individuals. Additionally, it provides an opportunity to discuss the importance of recycling, reusing, and reducing waste, fostering a sense of environmental responsibility from an early age.







# 3.3 How sharing habits can reduce waste



## 3.3 How sharing habits can reduce waste

Sharing habits in schools have the potential to significantly reduce waste and promote sustainable practices. By encouraging students to share resources like textbooks, art supplies, or sports equipment, schools can minimize the need for each student to individually own these items, thus reducing waste production and consumption. Collaborative initiatives such as sharing school materials, organizing book swaps, or implementing shared learning spaces can optimize resource utilization, foster a sense of community, and instill responsible consumption habits among students. By embracing sharing habits, schools can play a vital role in reducing waste, teaching valuable lessons about sustainability, and creating a more environmentally conscious generation.

In this section we will go through some of the many benefits of promoting a culture of sharing in your schools.



## Waste reduction

Sharing habits significantly reduce waste generation by minimizing the need for individual ownership and overconsumption. It promotes the efficient use of resources, preventing unnecessary purchases and disposal of unused items. In the EU in 2020, 4.8 tonnes of waste were generated per inhabitant. If we promote sharing habits, we are able to reduce this amount of generated waste as we stop having to massively produce because there is less consumption done.







## Resource Management

Sharing materials, equipment, and resources optimizes their use and extends their lifespan. This conserves valuable resources such as paper, stationery, textbooks, and art supplies, reducing the environmental impact associated with their production and disposal. A lot of these resources will be thrown away without being used. Repurposing these materials will decrease the demand for them and therefore the waste generated by this will also decrease.



## Create a Community

Promoting sharing habits within educational settings fosters a profound sense of community and collaboration among both students and staff members. The act of sharing resources, whether it be textbooks, tools, or knowledge, plays a pivotal role in shaping an environment where individuals learn to work harmoniously together. By engaging in this practice, students not only acquire essential academic skills but also cultivate effective communication and interpersonal abilities that extend beyond the classroom walls.

Sharing resources among students facilitates a deeper understanding of diverse perspectives, encourages peer-to-peer learning, and sparks creativity. When students come together to exchange ideas and materials, they broaden their horizons, gain exposure to alternative approaches, and develop critical thinking skills. Collaboration and cooperation become ingrained within their educational journey, as they learn to support and assist one another.

Moreover, the act of sharing cultivates a positive and supportive school atmosphere. It nurtures a sense of belonging and empathy among students, fostering a collective mindset focused on mutual success.







## Better Sustainability Education

Promoting sharing habits in schools provides valuable opportunities to educate students about waste reduction, sustainability, and responsible consumption. Students learn firsthand the environmental benefits of sharing resources and develop a deeper understanding of their role in creating a more sustainable future.

School is one of the main socializing agents for students, they will receive a lot of information here. This is why it's important to create a positive environment where sustainability education is at the centre of their educational journey. It is something that is needed in order to create a better future.



## Encourages responsibility and mindful consumption

Engaging in sharing habits cultivates a sense of responsibility and mindful consumption among students. They learn to be conscious of their resource usage, think critically about their needs, and make sustainable choices that minimize waste. This overall makes students aware of their civil duties and the need for action. It makes students think through what they actually need and what they can share.

Responsible consumption is the first step to reducing waste. If we create a society where we think about what we are using and how we can share with each other to reduce our consumption, we will create a better and more sustainable future.



## Equal access to resources

Sharing habits ensure equal access to resources for all students, regardless of their economic background. Students who may not have the means to purchase individual supplies or textbooks can still benefit from shared resources, promoting fairness and equal opportunities in education.



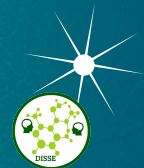


## **3.4**

# **Possible actions to develop to reduce wastes**



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## 3.4 Possible actions to develop to reduce wastes



In a world struggling with the consequences of excessive waste creating, it has become imperative to explore and implement effective actions to reduce waste and foster sustainability. As we have previously established, there are many ways inside of the schools that people can promote a reduction in their creation of waste.

However, there are also many ways in which this can be done outside of schools. This section of the module provides a glimpse into some of the potential approaches that can be developed to mitigate waste and pave the way for a more sustainable future. By embracing these actions, we can collectively work towards a cleaner and better planet, and valuable resources can be used sparingly.











## Share Transportation



Carpool with other people who are going in the same direction as you. This can be colleagues or friends when commuting to school, work or traveling to reduce the number of vehicles on the road and minimize fuel usage.

This works especially well for coworkers and students. There are also many efforts for neighbors who have kids who go to the same schools or activities that coordinate to take turns in taking all the kids together to save time, gas and money.

There are also applications like Uber Carpool which is not available in all countries, but it is a new feature that allows you to share rides and makes it cheaper for the consumer as well as better for the environment.



## Share Household Items

Set up a neighborhood or community sharing platform to exchange household items like kitchen appliances, gardening tools, or camping gear that are not frequently used. Most people don't need to own these items as they are not needed every day. By creating a sharing community, people don't need to spend money on these items, and they just use it when they need it.





## Share books and Magazines

Create a book or magazine sharing system within your community, workplace, or local library to promote reading and reduce the need for new purchases.

This can be including textbooks from schools or universities. This will not only reduce costs but also create less waste as most of these books are not necessary after being read once or twice. It can also be a fun sharing tool to get to read more books as well as get more reviews on books from people who already own and have read the books or magazines.



For schoolbooks this is a really positive idea as well, as sometimes within our neighborhood kids go to the same school that require the same books, if this is the case it will be very easy to share books especially when you have already finished using the book it can be passed on to another member of your neighborhood that will in the future use the same book.



## Sharing Skills

Organize skill-sharing events or workshops where community members can share their expertise, talents, and experiences, reducing the need for individuals to seek professional services or buy new items. This will also create a community where people try to fix things that break, instead of just throwing them away. Sharing skills is very useful for society as it creates less waste, makes us rethink how to use resources and the importance of fixing things.

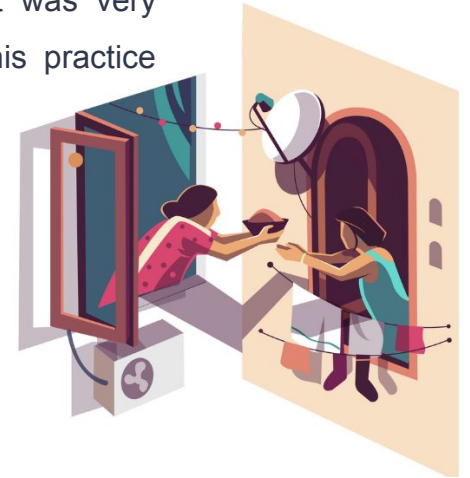
Most importantly it creates a community where we all have our use and skills that are valued and needed. Maybe we know how to fix a sink, but don't know how to mend our clothes, so we offer to help with the sink and ask for help with our clothes. Sharing means caring for the world.



## Share Food

Donate excess food to local food banks or participate in community sharing initiatives like food swaps or potluck gatherings to prevent food waste. It can also be done in a local way, where you share your food with neighbours and create a good community where sharing is a positive aspect and brings people together.

There is a lot of food waste, a problem which can be solved by sharing foods and being more conscious on how wasting food affects the environment. Sharing food with neighbours is a practice that was very common and is now becoming less so. We must promote this practice again to create less waste.

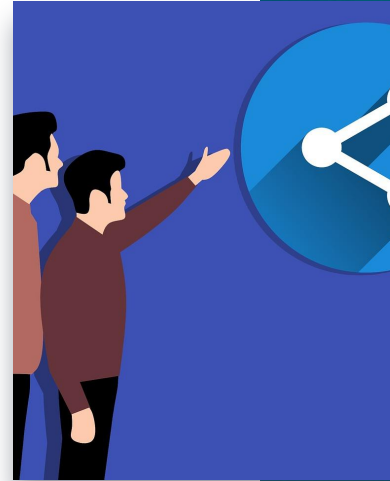




## Share digital resources

Choose digital formats of books, documents, and other resources whenever it is possible. This will reduce waste and save natural resources whenever needed.

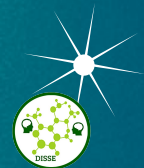
There are many documents that can be turned into digital, and sharing these documents online is actually easier now than it is to share physical copies of documents in most cases. Online spaces like Google Drive can help share and modify documents by multiple partners without the need for printing or sending a physical copy. This is very positive for work or classroom settings where a lot of the editing is done in a physical version, having a google drive with the electronic version means a reduction in paper waste.







## 3.5 Sharing actions list to be adopted in a school



## 3.5 Sharing actions list to be adopted in a school



There are many actions which can be taken in school in order to promote a culture of sharing and reducing the waste created in schools.

These sharing habits also cultivate values of sustainability, collaboration, and responsible consumption among students, which leads to a more environmentally conscious learning environment.

Young people and students are the future of our society, so we must ensure that they receive the proper sustainability education to take care of Earth.

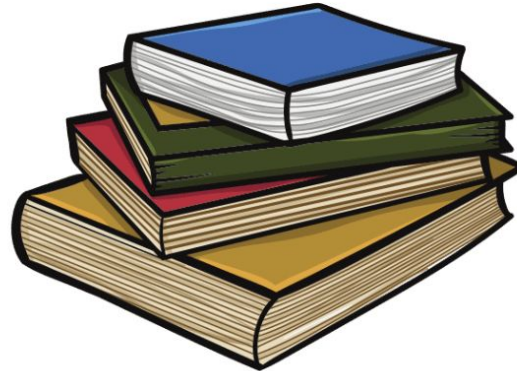
In this section we will go over some ways in which you can encourage students in your school to promote a sharing culture and reduce waste.



## Textbook Sharing

Implement a system where textbooks are shared among students across different grade levels or classes. This minimizes the need for each student to individually own a copy and reduces paper waste from excessive printing.

There are many benefits, which include cost benefits as well as helping the environment. So, it won't only be good for the environment but it will also be beneficial for the families who are sharing.



## Supplies Sharing

Encourage students to share stationery items like pens, pencils, rulers, and art supplies.

This prevents the accumulation or throwing away of unused or partially used supplies and reduces waste. It creates a community where sharing is common. By having shared supplies, students also learn how to take care of material to ensure the longevity of them.



## Equipment sharing

Establish a system where students can share equipment and resources for activities such as science experiments, sports, or technology. Sharing items like microscopes, sports gear, or laptops reduces the need for multiple sets and prevents unnecessary purchases.

Most classes only use this gear once or twice a week, so by sharing them there is less needed to waste and buy extra resources. In classroom it also fosters a sense of community when you share, taking care of this equipment is extra necessary as you understand that it is not fully yours but rather a sharing tool between you and your classmates.





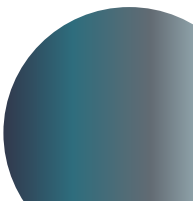


## Library or books swaps

Promote the borrowing and lending of books through a school library or organize book swap events. This encourages to reuse books, it reduces the demand for new books, and minimizes paper waste.

It is also a good opportunity for the exchange of ideas. For example, in book swaps, students can share their opinions on books and give it to their friends who they want to share the opinion of it.

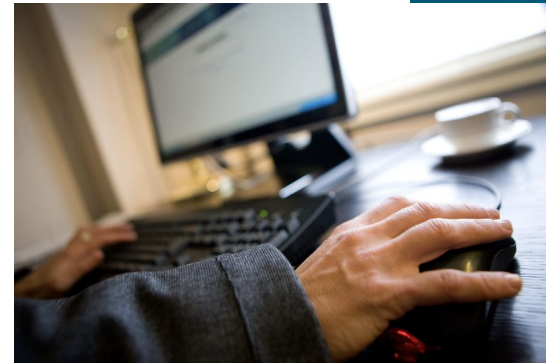
Some school libraries have “recommendation boards” where students can write books that they have read and liked so that others can read it too.





## Digital Resource Sharing

Utilize digital platforms and resources for educational materials whenever possible. Sharing digital resources reduces paper waste, eliminates the need for physical copies, and promotes efficient use of technology. Teachers can share documents via a school platform like Google Classroom. They can also share quizzes online so that they don't have to be done on paper. A lot of exams have also now resorted to a digital version as well, where students can take important needed exams for their education in a computer version instead of paper. This not only saves paper but also makes it easier to grade as it is instantly graded online.





## Food sharing and donations

Encourage students to share excess or food items through initiatives like food banks, community fridges, or organized food drives. This prevents food waste and promotes a sense of social responsibility.

It also allows for the food that isn't needed in the school to be useful in the future.

By encouraging students to be conscious of what they eat, we can create a better culture of sharing and environmentally conscious people. For example, if a student doesn't want to eat fruit, they shouldn't take it in the cafeteria, but rather reject it there and leave it for the others. All fruit that isn't grabbed by students can be donated, but if a student puts it on their tray to eat but doesn't, it goes straight to the bin.



# Activities to promote sharing in your class

## 1. Brainstorming posters

Depending on the size of your group, divide your students into groups of 2 or 3 students.

Write on the board “Sharing vs Waste”. Brainstorm together the different ways in which sharing can help reduce waste in schools.

Have each group choose one of those options and create a digital poster, you can use the Canva or any tool that they are familiar with, to promote this type of sharing in their school.

## 2. Sustainability Swap

Organize a swap in class where students bring some of their used (the ones that are usable, not broken beyond repair) that they no longer needed and they can exchange it with their peers. They can go around talking to people about the things they have. It is also a great way to talk about how some of the items can be fixed in order to get more or better use out of them.





## 3.6 App and tools for sharing habits



## 1.6 Apps and tools for sharing habits

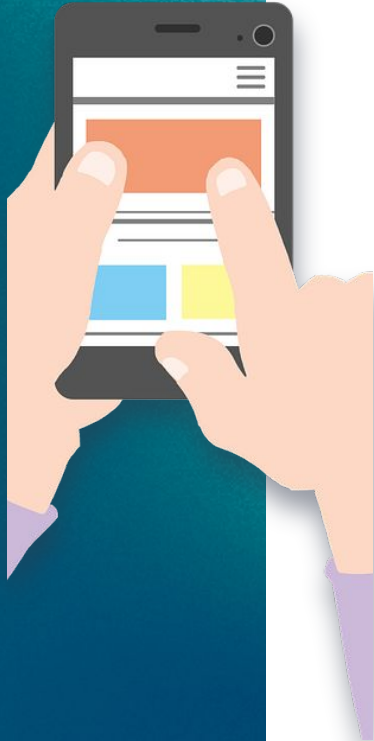
There are many apps and tools for sharing in schools.  
We will go through some of them.

### **Google Drive**

This is a platform that enables students and teachers to easily share and collaborate on documents, presentations, and other digital resources. This reduces the need for paper-based work and in a lot of cases reduces the time needed for corrections.

### **ClassDojo**

This is a communication app that allows teachers to share announcements, photos, videos and more with parents and students. This reduces the number of announcements that need to be sent in paper to parents.





## **Padlet**

Padlet is an online bulletin board that allows students and teachers to share and collaborate on ideas, creating a mind map style collaboration. It promotes sharing and collaborating in a virtual space.

## **Google Classroom**

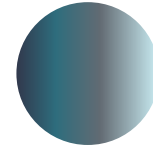
This is a learning management system that allows teachers to create and share assignments, resources, and information with students. It promotes an environment of collaboration, organization, and file sharing in a digital classroom environment.

## **Kahoot!**

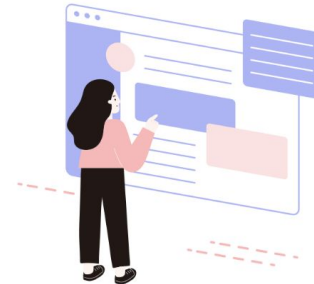
This is a game-based learning platform that allows teachers to create and share interactive quizzes, surveys, and discussions with students. It promotes the sharing of knowledge and active participation in an engaging and fun way. This can also replace the quizzes and games that were usually printed before so less paper will be used.



# Key takeaway



1. There are many different kinds of waste that are created in the school environment which include paper, food, energy, resource, plastic, water and hazardous waste. It is really important to be able to identify that.
2. Sharing promotes waste reduction: Encouraging sharing habits in schools can significantly reduce waste generation by minimizing the need for individual.
3. Sharing promotes collaboration and community. These habits create a better work and study environment for everyone. It fosters empathy, cooperation, and teamwork.
4. Using apps and tools to reduce waste, such as Kahoot!, can create a really positive impact in the community.





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