

Bin Materials Audit

Post-audit discussion notes

Recommended time: 15 – 30 minutes (depending on quantity of material, age, student questions and suggestions)

Learning Outcomes

- Understand the purpose of conducting a Bin Materials Audit (BMA).
- Understand the concepts of avoid, reduce, reuse, recycle, compost.
- Identify strategies to reduce material sent to landfill.



Setting the scene

- Explain that an audit of the bins was conducted.
- Ask what the term ‘audit’ means.
- Ask why we would conduct an audit? What might we be able to find out?
Ask:
 - What kinds of materials are going into the bins?
 - How much material is going into the bins?
 - If the bins at school are being used correctly (eg are 10c containers going into the 10c collection?).
- Explain that the bins that were audited are often called ‘rubbish’ bins. Ask what other names could be used for these bins.
 - Landfill bins is the term that Wipe Out Waste use for these bins.
- Ask why we would call them the landfill bins? What does the word landfill mean?
 - Landfill is the name of the place where materials from these bins are taken.
 - Landfills are carefully managed holes in the ground where materials from landfill bins are buried.
 - somewhere, they don’t just disappear!
- Explain that the items in the landfill bins can be called ‘materials’, ‘resources’ or ‘stuff’ instead of ‘rubbish’.
 - The word ‘rubbish’ implies that items have no value, but most do. Using ‘materials, resources or stuff’ implies that these items have value.
- Explain that the audit was conducted to see which resources are going into landfill bins that could have been managed differently.
- Explain that your site may already be managing materials in different ways. Ask what other systems are in place at school (if any) for collecting materials:
 - Paper/card, 10c containers, Food scraps, Fluoro lights, E-materials, etc.
- Ask what each of these systems look like/ where they are located:
 - Coloured bins/containers, in particular places, signage styles.
- Ask if the systems are used/ work well?
- Explain that information from the audit can help improve existing systems, or highlight the need or opportunities to implement new systems.

Review of audit findings

- Ask which words starting with 'R' are often used when we talk about the environment?
- Reduce, Reuse, Recycle (as well as avoid, refuse, rethink).
- Talk about 'Recycle' first.
- Ask what recycle/recycling means? (It is reprocessing materials into new products – which may be the same product again, or a different one).
- Explain that there are many things that can be recycled.

Recycling: Paper/Cardboard

- Ask what is used to make paper/ cardboard?
- Ask how recycling paper/ card helps the environment? (Explain that old paper and cardboard can be turned into new paper and cardboard.)
- Show how much paper and cardboard was found in the landfill bins.
- Ask if there is a collection for this material, and:
 - If no, ask if students think it's worth implementing one.
 - If yes, suggest that students check that all classes and areas (especially admin) have a paper/card bin, and there is effective signage and the bin is placed next to the landfill bin for easy disposal. Alternatively, ask students what they think could be done to ensure more paper/ cardboard goes into the paper/cardboard recycling collection.

Recycling: Kerbside Recyclables

(may only discuss with Year 3+, and only if there is more than 5 Litres)

- Explain that recyclables are the kind of materials that are placed in the yellow-lidded recycling bin at home.
- Ask students what kinds of things can go into this bin at home (eg EMPTY and DRY rigid plastic containers, tuna cans, milk bottles/cartons, etc.)
- Show the recyclables found in the audit.
- Explain that most recyclables come from canteen/ staff room/ OSHC and can be easier to collect than recyclables from outside as these locations usually have the capacity to rinse out their recyclables (which is important as recyclables are sorted by hand).
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one in key areas.
 - If yes, suggest that students check the collection bins for these materials to ensure they are located close to other bins and have adequate signage. Alternatively, ask students what they think could be done to ensure more of this material goes into the correct container.

Review of audit findings



Recycling: 10c Containers

- Show students any 10c containers found in landfill bins.
- Ask students why they think these items had been collected separately/ what do they have in common? (They are all 10c drink containers.)
- Ask the students if they collect these items at home?
- Add up the total amount of 10c containers.
 - Ask students to calculate how much 10c deposit money could be raised from the 10c containers.
 - Multiply this number to calculate the amount of money that could be made over a; school week (x5), term (week x10) and year (term x4). Ask who would like that amount of money!
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one in key areas.
 - If yes, suggest that students check the collection bins for these materials to ensure they are located close to other bins and have adequate signage. Alternatively, ask students what they think could be done to ensure more of this material goes into the correct container. Suggest 'open' systems (eg cages, buckets, tubs), with tongs available to remove contaminants regularly as these are most effective.

Recycling: Clean Soft Plastics

(may only discuss with Year 3+, and only if there is more than 5 Litres)

- Show any clean soft plastics that were found.
- Explain that clean soft plastics are items such as plastic shopping bags and plastic wrap which may have come from the canteen or office.
- Explain that clean soft plastics CANNOT be placed into the yellow-lidded recycling bin as they cause problems with the sorting process at the recycling centre.
- Explain that they can be collected separately and picked up by some waste contractors (ie whoever collects the schools bulk bins), or taken to some supermarkets or special drop off spots.
- Ask if there is a collection for these materials, and:
 - If no, then ask students if they think it is worth implementing one in key areas
 - If yes, suggest that students check the collection systems for these materials to ensure they are located appropriately and have adequate signage. If it is taken to a local supermarket – who will take it there?



Review of audit findings



Recycling: Electrical Materials

(may only discuss with Year 3+, and only if there are more than 2 items)

- Show any electrical materials that were found.
- Explain that electronic items, e-materials or 'e-waste' are banned from landfill and fines apply. This is because they contain hazardous materials which pose a threat to human and environmental health if placed in landfill. They also contain valuable resources that can be recovered via safe disassembly.
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one in key areas (your waste contractor may provide a collection option).
 - If yes, suggest that students check the collection system is appropriately placed and has adequate signage.

Now move on from 'Recycling' to 'Composting'. Explain that other materials can be 'recycled' in a different way.



Composting: Food Scraps

- Show the food scraps that were collected.
- Explain that food scraps can also be recycled. Ask how this is done?
 - Composting or worm composting.
- Ask students what is composting? (It is the process by which microorganisms 'break down' food into compost – a rich humus that can be added to soil.)
- What can compost be used for?
 - Compost is placed on gardens to help plants grow.
- Why is composting useful?
 - Reduces material to landfill, and returns nutrients to the soil to help plants grow.
 - Food scraps and organic materials placed in landfill break down and produce methane gas, a greenhouse gas with 21 times the warming potential of carbon dioxide. Composting prevents this from occurring and produces a valuable resource.
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one in key areas (class caddies or small 4-8 Litre buckets with lids are best).
 - If yes, suggest that students check the collection systems for these materials to ensure they are located close to other bins and have adequate signage. Alternatively, ask students what they think could be done to ensure more of this material goes into the correct container.
 - Explain that they can be collected separately and picked up by waste contractors (ie whoever collects the schools bulk bins), or staff/families may like to take them home for composting, chickens, etc.

Review of audit findings



Composting: Compostable Paper

- Explain that good compost needs to be made from more than food scraps (otherwise it becomes wet, slimy and smelly).
- Explain that 'compostable paper' can be added to improve the quality of compost.
- Show the compostable paper that was found.
- Explain that compostable paper includes lunch bags, tissues and paper towel which are not of a high enough quality to be recycled into new paper. Explain that they can be composted as they come from trees which will break down, just like food scraps.
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one in key areas. Suggest a bucket for hand towel in toilets, art, food tech and science areas, and buckets for lunch bags and tissues in classrooms/ the yard/ food lunch areas.
 - If yes, suggest that students check the collection system for these materials to ensure they are located close to other bins and have adequate signage. Alternatively, ask students what they think could be done to ensure more of this material goes into the correct container.
 - Explain that they can be collected separately and picked up by some waste contractors (eg whoever collects the schools bulk bins).

Composting: Garden Materials

(only discuss if more than 5 Litres are found)

- Show any garden materials that were found.
- Explain that garden materials can also be used to make compost.
 - Much of this material may come from grounds staff who manage the school yard.
- Ask if there is a collection for these materials, and:
 - If no, ask students if they think it is worth implementing one.
 - If yes, suggest that students check the collection systems for these materials. Students may need to speak with staff to inform others at the school of this collection. Alternatively, ask students what they think could be done to ensure more of this material goes into the correct container.

Review of audit findings

Now move on to **‘Reusing’**. Ask students what the word ‘reuse’ means. (It is using an item again for the same or different purposes).



Reusing: Single-sided Paper

- Show students what was collected.
- Ask where this material could go, instead of the landfill bin.
- Explain that it could go in the recycling bin, but what could be done first? (Used on both sides.)
- Ask if there is a place/s to collect single-sided paper, and:
 - If no, ask students if they think it is worth implementing something.
 - If yes, suggest that students check that all classes have a place to collect single-sided paper, and remind students of its location and add signage. Alternatively, ask students what they think could be done to ensure more of this material is reused before recycling.



Reusing: Reusables

- Show students what was collected.
- Ask students what the items have in common:
 - They are all good to be used again (eg ‘old’ pencils could be collected for a class set).
- Ask if there is a place to collect items that could be reused, and:
 - If no, ask students if they think it is worth implementing a reuse collection space.
 - If yes, suggest that students check that all classes have a place to collect reusable items (especially lunch containers), remind students of its location and add signage. Alternatively, ask students what they think could be done to ensure more of this material is reused.

Review of audit findings

Finally, discuss **'Reducing'**. Ask students what the word 'reduce' means (to make/have less of something). Explain that there are many items in schools that could be purchased or sent to school in a different way to reduce the amount of material being sent to landfill.

Reducing: Food and Drink Packaging

(Ziplock bags, cutlery, and small tubs can also be incorporated into a general packaging discussion)

- Show students what was collected.
- Explain that this material cannot be recycled.
- Describe some of the items found: chip packets, cling wrap etc.
- Ask students if they can think of a different way to bring this material to school:
 - Reusable containers or reusable wraps
 - Buy food items in 'bulk' and put a small amount into a reusable container, resulting in less packaging to landfill.

Reducing: Ziplock Bags and Cutlery

- Show students what was collected.
- Explain that these items are designed to be reused but are usually thrown away after one use for food. (They are handy for storing classroom items).
- Explain that ziplock bags cost on average 3-10c each. Add up the total amount of bags.
 - Ask the students to calculate how much money was spent on the ziplock bags collected (use 5 or 10c per bag).
 - Multiply this number to calculate the amount of money could be spent over; a school week ($\times 5$), a term (week $\times 10$) and a year (term $\times 4$).
- Ask students if they can think of different ways to bring this material to school (or show samples of):
 - Reusable containers or reusable wraps.
 - Metal cutlery or sturdy plastic cutlery from home, or a classroom set.



Review of audit findings



Reducing: Small Tubs

- Show students what was collected.
- Explain that at home, these items could be recycled because there is access to water for rinsing (which is important for the sorting process), but this is not always possible at school. Because of this, they are usually a landfill item at school.
- Ask students if they can think of different ways to avoid bringing this material to school:
 - Reusable containers. Buy in bulk and put a small amount into a reusable container, resulting in less packaging.
 - Have yoghurt with breakfast or dessert, so not needed at school.
 - Fresh fruit/vegetable snacks that require no wrappers.

Reducing: Uneaten Food

(This often works best at the end for shock factor. It's good to spread items out at the end of the day during pick up time, so parents are aware of issues and can start friendly discussions at home.)



- Explain that there is one more thing that can be reduced; uneaten food.
- Show students what was collected.
- Ask students if they think that the landfill bin is the best place for these items.
- Explain why it is wasteful to place uneaten food into the landfill bin:
 - There is a lot of energy and resources put into making food (eg farmer grows wheat, which is harvested and sent to the baker to make bread, bread packed and sent to a supermarket, family buys bread, used it to make a sandwich. As well as the things inside the sandwich- vegetables, ham, cheese, etc.).
 - Not everyone has access to adequate food every day and they are likely to place great value on food and would never waste it. (Discuss food cultures within your class as an extension activity).
- Ask students why people might throw uneaten food into the bin:
 - They do not like it.
 - They get too much food.
 - They run out of time to eat and play.
 - They think they will get in trouble if they take food home.
- Ask what could be done instead of throwing uneaten food into the bin:
 - Take it home to eat later (or give to an animal).
 - Speak to whoever makes your lunch and explain that you don't like an item and suggest something else or let them know you get too much food.
 - A note in the newsletter/app to parents/caregivers about having discussions at home to let students know it is ok to bring uneaten food home to eat later.



Review of audit findings



Reducing: Other

- Explain that if we were able to recycle all of the materials we can, including materials for compost, reuse what we can and reduce the amount of packaging and uneaten food, there is very little left that must go to landfill.
- Show students what was collected (this is likely to be a very small amount).
- Ask students if they can think of ways to reduce or eliminate some of these items.
- Ask students if they think they could send only 'other' to landfill by implementing the changes suggested.
 - How long might this take?
 - Who would need to be involved?
 - Do you have a SEMP (School Environment Management Plan) or other strategies to make changes?
 - Would classes like to try the WOW Less to Landfill Challenge?

Concluding Comments

- Ask students how this information makes them feel.
- Ask students if they have seen anything that makes them think they can do something differently from now on. Ask for suggestions, or encourage discussions in all classes.
- Inspire the students with the following story:
 - One school (who had been working with WOW) took away all of their outdoor bins. Individual classes managed their indoor bins and were encouraged to take their packaging home. This resulted in the school of 400 people only producing 25L of material for landfill in one day! It has been so successful that this has been continued and the school is saving lots of money and helping the environment by reducing their landfill collection.
 - **Many sites that have been re-audited have reduced material being sent to landfill by 50-80%.** Please let WOW know how your site goes. WOW can provide ongoing support with a Bin Systems Assessment if you implement changes, and a re-audit in 12 months or more. You may like to conduct your own audit during the year now that you know what's involved. Labels for tubs can be downloaded from the WOW site.

