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Kimberley Cutting shares her school's journey to improve our environment...

Schools are at the forefront of sustainability. We are in a significant position to influence parents and communities, and our students will grow to be the next environmental leaders and policy makers.

We had a problem

Like many schools, all of Kiama High School's waste has been sent to landfill for decades, and with over 1,030 students and 90 staff, this had large and compounding implications for our environment. In 2018, we partnered with ABC TV's <u>War on Waste</u> to reduce our waste and, in just two school terms, we were able to reduce our landfill waste from $15m^3$ per week to just $6m^3$ (see figures 1 and 2). Involving the War on Waste program helped to document and share our activities. Importantly, all of our initiatives can be achieved at almost all of our NSW Public Schools.

Measuring success

We found the benefits were evident in improved environmental impact, and there were also added successes such as enhanced school and community culture along with financial savings which could be invested into other school projects, facilities and resources. The savings were significant, with our waste management fee of \$2344 per month in November 2017 reduced to \$1534 per month by September 2018.



Figure 1 One week's worth of waste in May (prior to changes) and again in June (after 3 months of new waste system). Photo credit: ABC TV War on Waste, Season 2 – Episode 3.

Semester 1 2019



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	BEFORE	AFTER	
PAPER	99.1 KG	10.1 KG	
STRAWS	308	80]
PAPER TOWEL	20 BAGS	3 BAGS	
UNEATEN FOOD	170 ITEMS	14 ITEMS]
SOFT PLASTIC	42 BAGS	8 BAGS]
E-WASTE	141 ITEMS	1 BATTERY	
CONTAINERS	1750	296	MAN .

Figure 2 Reduction of key waste items since implementation of new waste system. Photo credit: ABC TV War on Waste, Season 2 – Episode 3.

Getting started

To begin our journey, students from Years 7-12 formed a voluntary group of passionate 'Waste Warriors'. From this start, over 40 students conducted a waste audit prior to any changes at the school and again 3 months after the changes had been implemented. The initiatives proved a huge success, including over 50% reduction in waste going to landfill, a saving of up to \$800 per month in waste management fees and fundraising of approximately \$500 per term through <u>Return and Earn</u>. Another unexpected outcome was a massive reduction of litter in the school playground, suggesting an associated awareness and sense of school pride and responsibility.



Figure 3 ABC TV's War on Waste at Kiama High School. Students sorted waste into four waste streams during the first waste audit. Photo credit: ABC TV War on Waste

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Steps to improve sustainability at our school

- We changed waste management provider to <u>Cleanaway</u> as their service allowed us to implement commingle recycling and food recycling in the school.
- New bins were purchased for the school playground, staffrooms and classrooms, including paper/cardboard, commingle recycling, landfill and food organics at a cost of \$13,000. We found it was essential to ensure that each classroom had a paper/cardboard recycling bin as this convenience reduced our paper inadvertently going to landfill, from 99.1kg to 10.1kg per week.
- We acquired an e-waste recycling bin from <u>Reverse E-Waste</u>. This is supplied and collected free of charge and allowed the school to dispose of electronic waste safely, ensuring that the valuable resources contained within these products were also recycled.
- Focusing education for students and staff on why, how and what we were attempting, along with ongoing promotion at school assemblies, during Positive Behaviour for Learning lessons, on social media and school newsletters also kept momentum going and involved more and more recruits as we demonstrated our commitment to sustaining each initiative.
- Our canteen needed a big overhaul, including a reduction of packaging and a move towards compostable and better types of recyclable packing. We also removed plastic straws and plastic cutlery.
- Uplifting whole school events, such as 'Trash-Free Thursdays' to reduce single-use packaging in the school encouraged students and staff to bring their lunch to school 'nude' and in reusable containers. This weekly novelty spilled over to form new behaviours and improved waste habits beyond the designated day.
- Student volunteers collect bottles for <u>Return and Earn</u> twice per week and we partnered with <u>Envirobank</u>, a company that collects our containers once per term for a small fee. The containers were then taken to their depot in Sydney and sorted by a machine and the money earned from this was refunded to the school's Parents and Citizens' Association. We became a local donation partner on the nearby "<u>reverse vending machine</u>" and this partnership allowed members of the community to donate their funds through <u>Return and Earn</u> directly back to the school.
- We joined with <u>TerraCycle</u> to install free and 'zero waste' boxes to recycle items not traditionally recycled, such as, coffee pods, office supplies and beauty products.



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- A <u>Battery World</u> recycling bin was provided and collected free of charge. Batteries are potentially hazardous for human health and the environment and today, only 4% of handheld batteries are recycled every year.
- Hand dryers were installed in all bathrooms in the school to reduce paper towel use, and the warm dryers were also particularly welcomed through winter.



Figure 4 Year 7 students seated with the School's bin system and containers they collected for Return and Earn.

Growth

We have been inundated with positive feedback from our community and have provided information to many other schools. We have ongoing education and promotion to encourage students to care for their environment and ensure bins are used correctly. For more information about our projects please visit the resources below:

- <u>Kiama High School's Waste Management Guide</u>
- Email Kiama High School at kiama-h.school@det.nsw.edu.au
- War on Waste can be viewed on iView at <u>https://iview.abc.net.au/show/war-on-waste</u>

This is the beginning of our journey to become a more sustainable school, and the students and staff at Kiama High School would like to encourage other schools to begin their journey too.

Kimberley Cutting is a HSIE teacher at Kiama High School. She is passionate about the environment, the 'zero-waste' movement and educating students to become informed and responsible citizens. Kim is part of the Kiama Community of Schools Sustainability Team and is currently working with other schools to improve their waste management.

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