

Educating for Sustainability

Gardening Composting Waste Segregation Energy Conservation c/o Sue, Ellen, Ritu 30th August 2023 We recognise the Ongoing Custodians of the lands and waterways where we work and live. We pay respect to Elders past and present as ongoing teachers of knowledge, songlines and stories. We strive to every Aboriginal and/or Torres Strait Islander learner in NSW achieves their potential through education.

Rationale

Sustainability practices support the school's wider goals by addressing our Strategic Direction 3 – Engagement and Wellbeing School Plan.

This looks at providing a range of extra–curricular programs and activities to promote student engagement and wellbeing.



Sustainability Committee

The Sustainability Committee has been formed in Term 2 Week 4. Its objective is to review BNPS current sustainability practices and initiate activities that will help teachers, staff and students develop positive attitudes towards and suitable action for sustainability in relevant, meaningful, enjoyable and creative ways.

Given that young children will become the next generation of adults, it is vital that they are educated about sustainability issues so they can be critically aware of the problems and take positive action to help preserve their future in a rapidly changing world.



Sustainability Committee

While evidence suggests that primary teachers are generally concerned about sustainability issues, an acknowledged lack of understanding of how to teach for sustainability and the perceived constraints emanating from current curriculum priorities commonly inhibit educating for sustainability from being developed in many classrooms.



Components



23

© Gardening

© Composting

Waste Segregation(Waste Reduction)

© Energy Conservation





Gardening

Since most of our students reside in high density housing, they have limited access to green spaces, backyards or home gardens. The school garden is valuable in improving student understanding of how food is grown

and to give students a connection to nature.



 We are fortunate at **Blacktown North** Public School to have a large garden area. This year we have 18 classes and each class has its own garden bed which is used to grow vegetables and herbs. In addition, we have larger raised garden beds, a sensory garden made from recycled tyres, numerous fruit trees/vines.

 Each class has their own garden bed.

 Each class visits the garden at least once a week.

 Students can also visit the garden during the Garden Duty of Mrs.
 Bishop (Monday & Tuesday at recess / Friday at lunchbreak) and Mrs. Sudario (every Thursday at lunchbreak)

Produce from the garden can be eaten by the students or sell to parents for a gold coin donation. Money earned can be used to buy more seeds

Blacktown North Public School April 28, 2017 - *

Our vegetable garden is thriving! Feel free to make a gold donation to the office, and go and pick something fresh to add to your cooking 😆 We currently have bok choi, lettuce, radishes and a variety of herbs. Many other vegetables will be ready soon



\$2 donation Curry Leaves Thank you

Sue Bishop | 17/08/2023 at 1:01 PM



Good afternoon. We have some lovely fresh produce in the garden- spinach, mint, lettuce, parsley and coriander. If you'd like to purchase some, please send a gold coin donation (and a plastic bag). I'll be in the garden tomorrow at recess picking produce. Thanks, Mrs Bishop Produce from the garden can be eaten by the students or sell to parents for a gold coin donation.
 Money earned can be used to buy more seeds





Produce from the garden can be eaten by the students or sell to parents for a gold coin donation. Money earned can be used to buy more seeds

From our vegetable garden to your kitchen by 1/2S we planted



we harvested









we cooked



harvested ones





Harshika helped prepare a traditional South Indian recipe (thoraan- her favourite) with the carrots she harvested yesterday. Thanks Mrs Sudario for helping Harshika learn a new skill and also for encouraging her to eat healthy.

we ate









Thank You for the carrets, Mrs Sud Today at 437 PM



All classes prepare their garden beds in preparation for the Blacktown Spring Garden Competition in September.

The entire school community takes a lot of pride in our garden and we work together to maintain it. Produce harvested in our garden is either consumed by students during Crunch & Sip or sold for a gold coin donation to parents or staff. The money raised from these sales is used to buy seeds or seedling for the garden beds. Our hard work and dedication has been recognised by Blacktown City Council and we have received awards for three years.



2016





Awards received from Blacktown Garden Competition

2016 – 1st Place Best Education Facility (Primary School)
2018 – 1st place Best Edible Garden School
2019 2022 – 3rd place Best Educational Facility

we won!!!

Congratulations Blacktown North Public School for winning

3rd Place

Best Educational Facility







2022

Composting

In the past, the composting system was maintained by one volunteer teacher who would send students each week to collect the food scraps from all the classrooms. Each class was asked to have their own compost bucket. However, this system takes the ownership of composting away from the majority of students and places it solely on one class.







Composting

We would like to see all students gaining a better understanding of the process and benefits of composting by adopting a shared approach to maintaining the school composting system. Furthermore, this ensures that the composting system is long lasting and not dependent on the knowledge of one staff member.

Three things to love about composting

1. Diverts waste from landfill thus minimising greenhouse gas emissions.

2. Improves soil quality and so increasing our harvest.

3. Students gain knowledge about the composting process and how food is grown.



Background Info

This is the composting bucket that 1/2Ssuccessfully utilised in 2020. This was done as a feasibility study before introducing the idea to the whole school.



Background Info

- Seeing that it was successful for one class, a project proposal was prepared so that Composting Made Easy can be introduced to the whole school.
- The project proposal has been approved by Mrs. Cefai before being submitted to the Sustainable School Grant committee.



Background Info BNPS successfully applied for a Sustainable School Grant amounting to \$5,127.50 which was received towards the end of Term 2 of 2021.

From: Fiona Martin
Sent: Tuesday, 2 March 2021 10:07 PM
To: Carmen Cefai
Subject: Urgent endorsement required - Sustainable Schools Grants application

Dear Carmen,

Many thanks for the Sustainable Schools Grant (SSG) application from Blacktown North Public School for Composting Made Easy (requesting \$5127.5), submitted by Ramya Menon and Ellen Sudario.

This project has been selected by the panel to move to the next stage of approvals.

Money used to provide:

- A big tub for safekeeping of your class gardening materials
- Set of shovels
- Packets of seeds
- 1 compost container with lid to collect food scraps
- 3 Compost Buckets to be buried in your class garden bed
- Potting mix
- Watering cans
- Gloves







The simplest and easiest way to compost

- 1. Simply dig a hole in your garden
- 2. Place ALL your food scraps in
- 3. Let the worms and bugs to all the work



The food scraps collection container will be stationed in each classroom where students will be encouraged to put all their food scraps (especially during Crunch and Sip). The food scraps will then be transferred into the in-ground compost bucket where the magic happens.



How the in-ground Compost Bucket works?





The simplest and easiest way to compost

- 1. Simply dig a hole in your garden
- 2. Place ALL your food scraps in
- 3. Let the worms and bugs to all the work

https://drive.google.com/file/d/1 w95vtQTwAQxAlrSsL6Gcl5CJVflP 3X8/view?usp=sharing Each class garden has 3 in-ground compost buckets. Always start with one bucket and fill it up before moving to the next one.

The friendship garden will also have in-ground compost buckets for any surplus food scraps.



Eco-warriors

©Teachers will nominate 2 students from their class to be their "Ecowarriors".

It is preferred if these students are not part of other extra-curricular activities to ensure that they are available to visit the garden with Mrs. Bishop or Mrs Sudario each week.

Each class' Eco-warriors will bring their food scraps containers. Mrs Bishop or Mrs Sudario will supervise the transferring of the food scraps into the compost bucket.

©Teachers can also transfer their food scraps during their regular gardening period each week.

©Classes are encouraged to empty their food scraps container as often as possible to eliminate odours and flies.



Worm Farm













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What can we compost?



Banana peels Apple cores Strawberry leaves Squashed berries or grapes Corn cob



Oranges Mandarins Meat Biscuits, cakes, chips, etc Cooked food



Waste Segregation

BNPS is currently involved in a Waste Reduction Pilot Program. This consists of waste and litter audits and surveys at the commencement and end of pilot; development of a Waste Reduction Action Plan (WRAP); linking learning in the school to the WRAP as well as sharing progress within the school community.





Waste Segregation

Each participating school is expected to complete the program implementation to the best of their ability, as well as the relevant data collection surveys, to help inform evaluation of the program. It is also expected that the school can act as an inspiration to others by the development of a case study to capture learnings and factors and success







School waste audit

A waste audit calculates the volumes and types of waste a school generates. It is a powerful tool to identify the main sources of waste in a school in order to implement change.



Students sorting.





Students counting return and earn.



Return and earn collected.



Whole foods collected.



Organics collected



Paper and cardboard collected

Blacktown North PS Waste Audit Number 1 Monday 13 March, 2023

Waste was collected from the classrooms, staffroom, office and playground.

Weight of rubbish collected before sorting

	Bag 1	Bag 2	Bag 3	Bag 4	Bag 5	Bag 6	Bag 7	Bag 8	TOTAL
Office	2.29kg								2.29kg
Classrooms	2.03kg	1kg	2.15kg						7.69kg
Playground	3.9kg	4.1kg	2.6kg	1.9kg	7.6kg	2kg	1.3kg	6.8kg	30.2kg
Staffroom	2.4kg								2.4kg
								TOTAL	42.58kg

	Daily
Organics	8.36kg
Comingled recycling	1.5kg
General waste	11.14kg
Paper waste	3.4kg
Return and earn (some still had liquid inside)	6.52kg
Return and earn Number of containers and potential \$	134 \$13.40
Soft plastics	1.5kg
TOTAL	32.42kg

There were 2 bags from the locked bins that are not collected daily. This rubbish was infested with cockroaches and maggots therefore we did not sort the waste from those bags.

Litter Audit

Conducting a litter audit is a great way to launch a litter reduction campaign at our school. If students find out how much litter is in school grounds, targets can be set and there is a 'baseline' for measuring change.

Litter Audit – Term 1 Week 9 (22 March 2023)













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Litter Audit

Worksheet: Litter audit

Pick up litter in your designated area and record your findings in the table

below.

Date and time: 22 March 2023 at 11:50 am Location: COLA, Canteen, Grass Area Student name(s): Haley, Nimat, Jaswinder Ethan, Gurrehmat, Bryant Aliyah Weather conditions (circle today's weather) - Cloudy

Litter count

Type of litter Number of items (use a tally to count IIII)

Type of litter	COLA	Canteen	Grass Area	Total
Sheets of paper:	0	1	6	7
Small pieces of paper	2	7	5	14
Plastic drink bottles	0	0	1	1
Plastic straws	0	0	1	1
Soft plastics (e.g. zip lock bags,	25	16	18	59
sandwich wrap				
or lolly wrappers) + chip packets				
Food	33	5	4	42
Aluminium can or foil	7	1	3	11
Steel can	0	0	0	0
Drink box (milk or juice)	0	2	0	2
Glass	0	0	0	0
Other items (please list below)				
- Tissue	1			1
 Ice block plastics 		12		12
- Balloon		1		1
- Cardboard			1	1
- ribbon			1	1
Total items	68	45	40	153

What were the most littered items?

COLA - Food

Canteen - Soft plastics, wrappers, chip packets

Grass - Soft plastics, wrappers, chip packets

Did you find any litter hotspots in your schoolyards? Why does the litter pile up there?

Under the silver seats because all students eat recess and lunch in that area.



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Waste Reduction Action Plan

Waste Reduction Action Plan presented to our school principal, Mrs. Carmen Cefai by our student leaders:



Waste Reduction Action Plan (WRAP)

Blacktown Nonth Public School

- Using data from the Waste and Litter Audit brainstorm with students to identify areas for improvement and add these to your WRAF
- Split the WRAP actions into short, medium and long-term goals and make sure you identify who is responsible for each action!
- Have the school's executive group endorse your WRAP.

Refer to the 'Top Tips' section of this plan for ideas on what to include in your WRAP as well as the RSS Waste Module checklist for further ideas.
Waste Reduction Action Plan

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Organic			Breders SRC, School Roders with Mrs Sudarto Mrs Sudarto	21/7/23
Organic	WA 7 72	Do a bin and litter audit to document any changes.	Braders SRC, School Ieaders with Mrs Sudarto	21/7/23

Waste Reduction Action Plan

	94k6 T2	Address Assembly with new posters and videos.	SRC and School leaders	27/7/2
	WA7 12	Complete a bin and littler audit to document any changes.	SRC, School leaders with Mrs Sudario	Endors
	WA2 12			
General	WARTZ			
Waste- Lendfill	Wk7 12	Complete Waste audit, identify any areas of change	SHC, School leaders with Mrs Sudario	
Paper and Cardboard	WA2T2		CONTRACTOR OF A	
	Wk4 T2			
	WAJ 12	Complete a bin audit to check that students and staff are using the waste streams correctly.	BRC, School leaders with Mrs Sudario	100000
Litter	VA2 12	and the second sec		- Harrison - Second
	VA472			127
	WA7 12	Complete a litter audit, compare results from previous litter audit. Share results (success and future goals) with the achool.	BRC, Bohoor leaders with Mrs Budario	a herry be
Other				

Endorsement

This plan will be reviewed annually or more often if necessary due to changes in regulations or an circumstances dictate

Ratified by	Ellen Sudario, Blacktown North PS SRC and Year 6 Leaders			
Title	Blacktown North Public School WRAP			
Approved by: Signature	Mrs. Carmen Cefai Principal			
Date	13/05/2023			

Waste Reduction Action Plan

ARE MORE BAGS NEEDED : LOCATION OF COLLECTION: Processing Number of containers processed :

487

Return and Earn initiative of Mrs. Puneet Kaur





August 14, 2023, Monday

Hi Puneet! Just letting you know that the 2 Collect and Earn bins are already full as of this morning.



Bin Guardians







Waste Segregation

Bin Signages:

Asphalt/Playground area:





Classrooms:









Waste Segregation

Staffroom:





Office:





Waste Segregation











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If you're not paying the electricity bill, it's easy to forgo energysaving efforts. But teachers and administrators can conscientiously make a few changes to create more energy-efficient schools. Plus, inviting students to help use power in a more environmentallyfriendly way allows them to conserve power at school and practice energy conservation at home.





Schools, depending on their size, can be significant users of energy. Analysis by DET has identified that that the main areas of energy consumption in schools are:

> Lighting >Heating and cooling > Computers.

Schools have many opportunities to reduce their after-hours energy usage such as: > turning off lights > turning off computers, printers, photocopiers and office equipment > turning off heating and cooling > implementing shut down procedures for weekends and school holiday periods. The savings from improved shut down and switch-off behaviours can result in financial savings of up to 20% of a school's electricity costs.



Breakdown of energy costs in a typical school

FIGURE 1 A TYPICAL SCHOOL'S ENERGY CONSUMPTION



Energy Conservation



Energy awareness campaigns Everyone in a school can contribute to energy saving, so it is important to raise awareness throughout the whole school and train everyone in what they can do. Running a campaign for students, teachers, other staff and parents can help by encouraging everyone in the school to play their part. Schools can do this by communicating key messages to the whole school community (e.g. turn the lights off when not in use, along with energy consumption information and comparisons) via posters, newsletters and the school's website. Getting students involved and leading energy awareness campaigns can be a fun way to encourage student engagement in energy efficiency and enrich their studies.



ENERGY MYTH 1

If you leave the lights on you will use less energy than if you turn them off and then on again.

Fact

There may be a small surge of power that occurs if older types of globes are used, however it's a small amount of energy compared to the amount used when lights are switched on. Always turn lights off when not in use.

Increasing the amount of daylight has benefits

TIP

Making good use of daylight in a classroom can reduce lighting costs by 20% and improve student learning outcomes.

Heating and cooling

Heating and cooling are typically the biggest users of energy in schools.

ENERGY MYTH 2

Setting a higher temperature will heat your room faster

Fact

Heating and cooling systems work at a fixed rate. Setting higher or lower temperatures than required will not heat or cool your room faster; it will just consume more energy.

TIP

Top tips for heating and cooling

- 1. Schools have reduced their heating and cool costs by implementing "dress for the weather" policies.
- Set your heater or thermostat to between 18 and 20 degrees, as every degree warmer can increase your running costs by up to 10%.
- Encourage staff to report areas that are too hot, cold or draughty and investigate them promptly through maintenance measures.
- 4. Adjust timers so that the building reaches optimum temperature just as people arrive and begins to cool down as people leave. This is best done by gradually altering setting over a number of days and checking the response of the building occupants. If the school is occupied for different periods over the week, install seven-day timers to allow the systems to operate only when the building is occupied.

TIP

Power point timers are cheap and effective

Install a power point timer on your boiling hot water unit to automatically turn the unit off when hot water is not in use this will ensure it's not running 24 hour a day, seven days per week. If you don't have an automatic timer fitted to your hot water unit, turn the system off at the wall during school holidays to prevent it from continuing to use electricity maintaining the water at boiling.

ENERGY MYTH 3

When equipment is on standby, it's off.

Fact

Many people assume electrical products are off when they are on standby. Be especially wary of equipment that has a remote control – this is a sign that the equipment is likely to be left on standby while waiting for the 'on' signal from the remote. A red or green LED light is another sign.

Turn off appliances during school holidays

TIP

Encourage teachers, students and canteen staff to turn off appliances at the wall in the canteen, classrooms and staff room when they are not in use. Ensure all appliances are turned off over the school holidays.

As a minimum fridges and freezers should be cleaned out and turned off over the summer school holidays. Replacing faulty refrigerator and freezer door seals will make a significant difference particularly over the summer months. Regular cleaning and maintenance of refrigerators and freezers will reduce running costs.

Background Information:

At Blacktown North Public School we believe that the most effective way to promote and make changes to our environment is by educating our students, as our planet's future welfare is in their hands.

Two volunteers from each class will be members of the Clean and Green Eco Warriors. They will be promoting energy conservation, gardening, recycling and composting in their respective classes.

BNPS is currently participating in a pilot of a sustainability program. The focus of the pilot is waste and litter reduction. However, the program in totality offers practical support to schools to reduce resource use, make cost savings, integrate sustainability into the curriculum and share learnings beyond the school gate.

A newly formed Sustainability Committee headed by Mrs. Sue Bishop will spearhead projects and various initiatives to promote sustainability programs in our school community by raising awareness amongst all of our students, parents and staff.

Dear class teachers,

Kindly pick 2 very responsible volunteers in your class to be your Eco Warriors. These 2 students in your class will be provided with a special badge and will have special duties including the following:

- Monitor proper segregation of trash in the classroom

 Attend Gardening Duty of Mrs. Bishop or Mrs. Sudario to transfer scrap fruits from class compost pail to the class compost buckets in the garden.

- Bring and empty class compost pail during their class's Gardening Period.

- Transfer contents of orange, blue and yellow murfe bins in the classroom into the colour coded wheelie bins in the asphalt area.

- In-charge of turning off AC and classroom lights when the whole class leaves the room.
- In-charge of turning off IWB monitors when the whole class leaves the room.
- Monitor cleanliness in the classroom.
- Monitor cleanliness of their class's silver seat area.
- Attend Eco Warrior's meeting with Mrs. Sudario every Monday lunchbreak.





Eco Warriors

School Clean Up Day

School Qean Up is a great way to inspire students to learn about the impact of rubbish on their local environment while playing an active role in their community.

Since 1992, schools across Australia have got stuck in and made a real difference to their environment and local communities through participating in Schools Clean Up Day.

Schools Clean Up Day is a fun and engaging way to teach young Australians about the responsible disposal of rubbish resource recovery and the repercussions of rubbish dumped irresponsibly in the local environment.







In Week 6 and 7, all students of BNPS engaged in our own School Clean Up. Teachers and students worked together cleaning up all areas in school including the asphalt area, grass area and the garden. Well done BNPS



























STEP UP ** CLEAN 4P Schools Clean Up Day

Schools Tree Day 2023 at BNPS

National Tree Day is Australia's largest tree planting and nature care event. It is a call to action for all Australians to get their hands dirty and give back to the community. While every day can be a Tree Day, Blacktown North Public School celebrated Schools Tree Day on Friday, 28 June 2023.









TREE DAY

Thank you to our BNPS parents who donated their allocated plants from Blacktown Council to our school for the students to plant today. These trees will provide a natural shelter for our students in the years to come.

adents in the years to come.

Blacktown North Public School receives Woolworths Junior Landcare Grant

Woolworths and Landcare Australia are delighted to offer Blacktown North Public School a grant of \$1,000.00 for our project WW230493-Composting Made Easy and Gardening 2023.



Mrs. Sudario prepared the grant application for the Composting Made Easy and Gardening 2023 project in Term 1. The aim of the project is to continue BNPS composting program and sustain the school's vegetable garden.

In this project, all students will be involved in composting food scrap and maintaining a vegetable garden for their own class. The expected environmental and educational outcome of the project includes a shared approach to composting and growing, harvesting and eating the produce.

The "Composting Made Easy and Gardening 2023" initiative aims to develop in our students the responsibility of caring for plants and enjoying the food the students have grown. This initiative aims to see all students gaining a better understanding of the process and benefits of composting and gardening. We already started this in

2021 and we would like this to be an ongoing and sustainable program. The grant received will be used to buy seeds, gardening soil, compost buckets. etc. for this year. Additional gardening tools are also needed to be provided to a new additional class we have this year.

Congratulations Blacktown North Public School as being meeted a Wosteerthe Junit Landson Grant. Than yoo to perstraining with us to gove the next generation of embersmall champions.



EnviroMentors Workshop organised by Mrs. Rizcallah





During the month of August, Kindergarten, Stage 1, Stage 2, and the support units had an incursion in the hall from Environmentors.

The incursion raises awareness of waste management actions and the implications of waste & littering on the environment and communities. Ultimately reducing waste that heads to landfills. Students developed an understanding of how waste is corted and where it ends up, and to identify the best practices in packing Nuches, how to avoid waste and which bin is best to use when it cannot be avoided.

The students were excited to share their growing knowledge due to our whole school recycling program that already active in our school,

Let's keep Blacktown North BEAUTIFUL



The Educator magazine – BNPS was successful in becoming a 5-star sustainable school, school name to be published in September edition of magazine.

Thank you!

Educating for Sustainability

