

SUSTAINABILITY NORTH COLLEGE



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SCHOOL ENVIRONMENTAL MANAGEMENT PLAN 2019-2023

This School Environmental Management Plan (SEMP) outlines Sustainability North College's commitment to sustainability. It highlights our achievements to date and a plan for what we would like to achieve in the future.

This SEMP has been developed as part of ResourceSmart Schools, which we joined in 2015. ResourceSmart Schools is a Victorian Government initiative that will help our school benefit from embedding sustainability in everything we do. Our school will take action to minimise waste, save energy and water, promote biodiversity and reduce our greenhouse gas emissions. Sustainability Victoria and Westside Council have funded us to participate in ResourceSmart Schools and receive facilitation support from CERES.

Our SEMP is made up of the following key documents:

- A. Education for Sustainability Vision
- B. Sustainability Policy
- C. Green Procurement Policy
- D. Implementation
- E. Curriculum Review

Ratified by School Council on: 20 August 2019

Date of next review: August 2023

A. EDUCATION FOR SUSTAINABILITY VISION

At Sustainability North College we strive to inspire our whole school community to connect with the environment and to make a positive contribution to sustainability at school, home and beyond.

B. SUSTAINABILITY POLICY

Rationale

Sustainability North College aims to reduce our ecological footprint through adopting sustainable practices in our everyday operations. We will achieve this by continuing to integrate sustainability into all areas of the curriculum and instilling a sense of ownership of and pride in improving the environment. We will lead the community by demonstrating exemplary practices in waste management, water and energy usage, and continue to develop the school grounds to improve biodiversity.

Guidelines

Energy - To control energy consumption within the school so that we reduce our impact on the natural environment; use resources and equipment as efficiently as possible; include students in developing and maintaining an energy efficient school; educate students, staff and the whole community about the best practice for energy efficiency, our whole-school energy conservation plan and sustainability initiatives and ecologically sustainable design (ESD) features in our school; and conduct auditing and monitoring of energy usage around our school.

Waste - To use an integrated waste management system within the school so that we reduce our impact on the natural environment; practise the 5R's waste minimisation hierarchy, Refuse, Reduce, Reuse, Repurpose, Recycle; close the loop on organic waste onsite; manage recycled products and landfill waste daily in the appropriate manner; educate students, staff and the whole community about the best practices for waste management, and our whole-school waste and litter reduction plan; and conduct auditing and monitoring of litter and waste at our school.

Biodiversity - To improve our outdoor natural environment through implementing our sustainability master plan to continually improve biodiversity in our school; optimise the teaching of sustainability education using the natural environment; educate students, staff and the whole community about actions for improving biodiversity in our school, and linking school vegetation and habitats with surrounding areas; and conduct biodiversity auditing to improve the habitat quality at our school.

Water - To control water consumption within the school so that we reduce our impact on the natural environment; to appreciate water as a precious resource; educate students, staff and the whole community about the best practice for water efficiency, our whole-school water conservation plan, and sustainability initiatives and water retention systems in our school; and conduct auditing and monitoring of water usage and stormwater collection around our school.

Aims and Targets

Benchmark targets are set by Sustainability Victoria

	BIODIVERSITY	ENERGY		WASTE	WATER
		ELECTRICITY	NATURAL GAS		
Benchmark	Increase habitat quality assessment score every year from baseline	400 kWh per student / per year	1.4 GJ per student / per year	0.3 m ³ per student / per year	4 KL per student / per year
Baseline (first 12 months of billing data)	62	900 kWh	3.5 GJ	1.8 m ³	10 KL
2018 Actual	70	880 kWh	3.0 GJ	1.3 m ³	9 KL
2019 Target	75	850 kWh	2.5 GJ	1.0 m ³	8 KL
2020 Target	80	700 kWh	2.0 GJ	0.9 m ³	7 KL
2021 Target	85	600 kWh	1.8 GJ	0.7 m ³	6 KL
2022 Target	90	500 kWh	1.6 GJ	0.5 m ³	5 KL
2023 Target	95	400 kWh	1.4 GJ	0.3 m ³	4 KL

C. GREEN PURCHASING POLICY

Rationale

Sustainability North College is committed to sustainable practices within its community. It will endeavour to purchase 'green products' in order to reduce its environmental impact and to help 'close the loop'.

Sustainability North College wishes to reduce its ecological footprint and to educate students on making environmentally friendly choices for life.

Guidelines

When feasible, Sustainability North College will:

- Purchase 100% recycled paper for printers and photocopiers.
- Purchase a percentage of certified GreenPower.
- Purchase furniture, equipment and other materials made from recycled materials.
- Source recycled products for book orders.
- Purchase fair trade tea and coffee
- Use reusable and/or biodegradable packaging in the canteen and at events.
- Ensure the following groups are actively involved in using environmentally friendly and recycled products: Cleaning staff, Garden and grounds staff, Building and maintenance staff, students and school staff.
- Replace appliances with energy-efficient star rated appliances.

D. IMPLEMENTATION

In this snapshot we are documenting our campus, curriculum and community actions and identifying opportunities for improvement. We are also identifying opportunities to shift our whole school culture to take action on climate change.

BIODIVERSITY	Current Practices	Future Goals	How we will achieve our future goals
<p style="text-align: center;">Campus</p> <p>Audit Investigations, Habitat Gardens, Food Gardens, Maintenance & Protection</p>	<ul style="list-style-type: none"> • We have plants that encourage bird life • As per school plan, only plant water sensitive, native, indigenous and drought tolerant species • Wetlands – frogs and macroinvertebrates • Annual Biodiversity Audit by Enviro Team • Every year level has their own vegie garden • Year 7s conduct Biodiversity Audit annually 	<ul style="list-style-type: none"> • More animal habitats • Start monitoring – fixed set of binoculars in library with log box • Nesting boxes that are designed as species specific • Rain gardens using water diverted from downpipes • Identification tags on all trees and shrubs • Soil testing 	<ul style="list-style-type: none"> • Y7 students to design animal habitats and nesting boxes as part of Design & Tech in T4 2017 • Leonie to source binocular in T4 2017 • Student Green Team to research rain gardens in T4 2017 to implement in T1 2018 • Gardener to add tags to trees by T1 2018 • Y9 Students to test soil as part of Science
<p style="text-align: center;">Curriculum</p> <p>How Biodiversity is embedded into learning and teaching and creating opportunities for students to participate in hands-on projects.</p>	<ul style="list-style-type: none"> • Year 7: Science – Biodiversity (Classification and Habitats); Geography – Endangered Species (Pollution and Habitat destruction) • Year 8: Science – balancing our environmental systems; Technology – Forest to Spice Rack • Year 9: Science – ecosystems, biodiversity; Great Outdoors – climate change and global warming • Year 10: Science Life – coral bleaching, climate change impacts; Trip to Mushroom Reef marine sanctuary • VCE – Gardening and produce markets 	<ul style="list-style-type: none"> • Garden Program for all year levels • Incorporate CERES Biodiversity Activities into the curriculum • Incorporate Foreign Language into Garden Program with bi-lingual name identification tags • Food Tech and Bush Tucker Garden program 	<ul style="list-style-type: none"> • Curriculum leaders to review in T4 2017 planning meeting to implement in 2018 Planner

<p style="text-align: center;">Community</p> <p style="text-align: center;">Building links with the school community and local community organisations and groups.</p>	<ul style="list-style-type: none"> • Clean Up Australia Day • World Enviro Day • Newsletter articles containing biodiversity updates • Parent Working Bees for school gardens once a term • Plant donations from local nursery • Applied for grant for Year 10 students to take trip to Mushroom Reef marine sanctuary 	<ul style="list-style-type: none"> • Parent Working Bees currently once a term, make once a month • VCE students to manage social media page on their food garden business project • Contact local Friends of group for biodiversity projects • Raise funds for Tasmanian Devil conservation 	<ul style="list-style-type: none"> • Sustainability coordinator to discuss with Garden manager next few working bee dates/sessions and schedule call out in newsletter – starting T4 2017 • VCE teachers to work with students in T2 2018 • Enviro Captains to research and approach local friends of group in T3 2017 • Student Green Team to plan and implement fundraising campaign in T2 2018
<p style="text-align: center;">Culture</p> <p style="text-align: center;">Environment captains meet with local MP to discuss action on climate change</p>	<ul style="list-style-type: none"> • Garden Leaders • Arbory Club which focus on and promote planting projects around school and within the community • Compost Scientist manage compost systems around school and lead presentations during assemblies • Staff attend TEN's and include in staff minutes • During Team Meeting, staff – including maintenance and grounds staff – created planting regime for wetlands area 	<ul style="list-style-type: none"> • Leadership for Sustainability workshop for staff • Distribute leadership roles amongst staff and students • Survey whole school community (staff, students and parents) to determine understanding of biodiversity issues • Garden produce to sell in reception 	<ul style="list-style-type: none"> • Sustainability coordinator to organise with CERES in T2 2018 • Following workshop AP to elect 2 staff to join Staff Green Team • Student Green Team to recruit one representative from each year level in T1 2018 • Enviro captains to design survey and roll out in T1 2018 • VCE students to organise produce box and signs for reception and take produce bi-weekly – starting T1 2018 • Sustainability coordinator to promote produce sale in newsletter in T4 2017 and T1 2018

ENERGY	Current Practices	Future Goals	How we will achieve our future goals
<p>Campus Audit Investigations, Computers and Electronic Equipment, Lighting, Heating and Cooling, Renewable Energy</p>	<ul style="list-style-type: none"> • SWEP monitor our energy use • Turning off unused appliances • Timer lights and motion sensor lights in hallways, bathrooms, outside • Energy saving photocopiers • Using natural light in classrooms • Signs in classrooms to turn off lights • Solar panels on roof • Energy Audit annually • 10% of electricity is GreenPower 	<ul style="list-style-type: none"> • More Solar panels • More energy efficient appliances • Setting heating and cooling thermostats at recommended temperatures throughout school • Audit Lux levels and de-lamp as needed • Solar hot water • 5+ star appliances • Increase to 25% of certified GreenPower 	<ul style="list-style-type: none"> • Sustainability coordinator to research solar grants and discuss with CERES in T1 2018 • Business manager to ensure all purchasing abide by Green Purchasing policy • Facility manager to adjust thermostat settings in T2 2018 and student green team to do spot checks in T3/T4 2018 • Undertake professional energy audit in T1 2019 • Business Manager to inquire about Green Power plans and report to AP/Sustainability Coordinator in T1 2019
<p>Curriculum How Energy is embedded into learning and teaching and creating opportunities for students to participate in hands-on projects.</p>	<ul style="list-style-type: none"> • Year 7: English – Debate on social justice and environmental issues; Economics – Sustainability and the economy eg. logging, mining, carbon tax • Year 8: Science – energy types, sustainable houses • Year 9: Geography – population; English – Advertising and environmental pollution • Year 10: Geography – wealth distribution and unequal distribution of resources • VCE: Ethics and Environment; Architecture (solar panels) 	<ul style="list-style-type: none"> • Use CERES Energy Curriculum Activities • CERES Mobile Energy Classroom Incursion • Purchase Energy Auditing Kits and incorporate regular student-led auditing in maths, science and IT • Use inverter data from solar panels in curriculum • Using Energy Reports from ResourceSmart Online in Maths 	<ul style="list-style-type: none"> • Curriculum leaders to review in T4 2017 planning meeting to implement in 2018 Planner

<p>Community Building links with the school community and local community organisations and groups.</p>	<ul style="list-style-type: none"> • Earth Hour concert • Transport Audit for students to 'bikepool' together • Enviro Day which has an energy focus • Planet Savers worked with students to conduct energy audit and published recommendations in school newsletter • Sparkys Group – energy environment team receive guidance and mentoring on energy projects from parents who are electricians • Year 9 attended AYCC Climate Justice Summit at Trades Hall 	<ul style="list-style-type: none"> • Solar Energy Carnival with nearby schools and solar car race competition • Working Bees to plant trees outside of Main Building to provide shade during summer months • Energy Tips in School Newsletter from 'Sparkys Group' • Students to borrow energy auditing kits and do at home with parents • With One Bean fundraiser • Environment captains meet with local MP to discuss action on climate change • Work with AYCC to 'Repower' school 	<ul style="list-style-type: none"> • Enviro captains and students Green Team to start planning in T3 2018 for tentative events in T2 2019 • Sustainability coordinator to discuss with Garden manager appropriate time and schedule call out in newsletter • Student Green Team to compile tips and publish in newsletter following audit in T1 2019 • Curriculum leader to include energy home auditing activity in 2019 planner • Student Green Team to organise fundraiser for solar events and audits funding • Environment captains meet with local MP in T3 2019 • Sustainability coordinator to research and enquire AYCC for partnership in 2019
<p>Culture Whole-of-school approach to increase awareness and knowledge of energy issues.</p>	<ul style="list-style-type: none"> • Sparkys Group report at school assemblies at end-of-year assembly on school's energy usage for the year • SWEP energy monitoring reports presented at staff and school council meetings • Switch Off Competition • CERES delivered Energy Module workshop to staff • School Council approved more solar panels at school 	<ul style="list-style-type: none"> • Staff Energy Monitors program heating and cooling temperature on thermostats for all staff, teaching and recreation areas • Use staff meetings once a term to work on energy awareness at school and in the home • Training for staff and students on reading the inverter for our solar panels • Savings from energy bills to be reinvested for classrooms to go on an environmental excursion 	<ul style="list-style-type: none"> • Facility manager to adjust thermostat settings in T2 2018 and student green team to do spot checks in T3/T4 2018 • Enviro captains to present at assemblies once a Term to raise energy awareness starting T1 2019 • Sustainability coordinator to organise solar meter reading training with CERES in T3 2017 to start entering data in RSS online

		<ul style="list-style-type: none"> Climate Change mock election where student actions teams present to whole school during assembly (can be part of Earth Hour event) Pledge to the TAKE-2 Initiative 	<ul style="list-style-type: none"> Enviro captain to calculate energy savings off RSS once a Term and communicate to Business Manager/Sustainability co-ord starting T4 2017 Incorporate CC mock election to Earth Hour event 2019. Sustainability teams to start planning in T1 2019 AP to sign up to TAKE 2 by end of 2017 and announce in newsletter
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WASTE	Current Practices	Future Goals	How we will achieve our future goals
<p>Campus Audit Investigations, Green Purchasing, Waste Systems for: Landfill & Recycling, Electronic Waste, Paper, Reusing, Litter</p>	<ul style="list-style-type: none"> Small landfill bins and large recycling bins in school grounds Compost bins and recycling bins in classrooms Nude Food Days Compost for garden Recycled toilet paper Digital subscription for staff newspapers Bin Audits on a weekly basis for ResourceSmart Online bills data Students use iPads which reduces paper printing Waste Team conduct waste audits 	<ul style="list-style-type: none"> Reduce bins in school grounds and ensure there are landfill and recycling choices side by side Compost bins in foodtech rooms Reduce litter from the canteen by creating House debit points for littering Encourage double sided printing Shred used paper and put in compost Increase waste-smart signage in classrooms, corridors, offices, public places in school Mobile phone and ink cartridges recycling Buy recycled paper Buy fair trade tea/coffee Environmentally friendly cleaning products 	<ul style="list-style-type: none"> Undertake waste and litter audits in T4 2017 and plan with Green Team for solutions to reduce litter and waste to landfill Sustainability coordinator to source buckets (recycled) for classroom organic waste collection in T4 2017 and Enviro captains to introduce it to classes Green team to make waste-smart signs in T4 2017 and T1 2018. Enviro captains to follow up with announcement at first assembly of 2018 Green team to investigate other recycling programs in T4 2018

			<ul style="list-style-type: none"> Sustainability coordinator to present Green procurement policy at assembly in T3 2017 and review school purchases with BM and AP in T4 2017
<p>Curriculum How Waste is embedded into learning and teaching and creating opportunities for students to participate in hands-on projects.</p>	<ul style="list-style-type: none"> Year 7: Drama – research assignment for recycled props for stage production; Art – recycle signs for school Year 8: Home Economics – waste minimisation and Fast Fashion Year 9: Technology – using natural products and waste business assignment Year 10: Art – recycled plastics and materials furniture designs; Digital Art – Food Waste video project VCE: Geography – ocean gyres (garbage patches) 	<ul style="list-style-type: none"> Staff Waste Monitors set double sided printing as default on all printers Visit waste transfer station Use CERES Waste Curriculum Activities Take 3 writing reflection journal Love Food Hate Waste presentation from Council 	<ul style="list-style-type: none"> Sustainability coordinator to organise IT default settings in T4 2017 Waste excursion in T1 2018 as intro to 2018 focus on waste Head of curriculum to provide direction and resources for 2018 waste focus during T4 2017 planning Sustainability coordinator to investigate waste visitors/ incursions for T2 2018 or T3 2018
<p>Community Building links with the school community and local community organisations and groups.</p>	<ul style="list-style-type: none"> Waste Team collect plastic bags and batteries and recycle at local supermarket Take 3 event at St Kilda beach in Term 4 with students, staff and families Council works with school on waste initiatives Nude Food pledges from students and parents Twice-a-year clothing donation drive Newsletter articles on Nude Food and Nude Food recipe of the month 	<ul style="list-style-type: none"> Students to write to local MPs about banning plastic bags in their council Nude Food Cooking Ideas workshops for parents Partner with local primary school to collect mobile phones for They're Calling On You campaign 	<ul style="list-style-type: none"> Y6 English teachers to include letter to MP as part of persuasive writing in 2018 Sustainability coordinator to enquire within parent community at T4 2017 assembly about need and experience with Nude Food As part of Green team T4 2018 investigation on other recycling program, review existing programs at school in vicinity

<p style="text-align: center;">Culture Whole-of-school approach to increase awareness and knowledge of waste issues.</p>	<ul style="list-style-type: none"> • Arbory Club deal with compost around the school • Every week a new classroom conducts bin audits • Council delivered Waste presentation to students and staff during school assembly • Waste Monitors present at school assemblies • Waste to Art expo – projects and sculptures around the school made from waste • Students/Waste Teacher Leader contacted waste contractor for less bin pickups 	<ul style="list-style-type: none"> • Apply for ResourceSmart Schools awards and staff to work on application during staff meeting • Students and staff to work alongside canteen to reduce products with packaging and reduce food waste • Participate in behaviour change events such as FOEs Green Pledge in September or Plastic Free July • Investigate Green Purchasing options during staff meetings and use savings from waste reduction to pay the difference, if any, for greener products • School cleaners meet with Waste Monitors on a monthly basis for waste updates and ensure proper waste disposal between school and cleaners 	<ul style="list-style-type: none"> • Sustainability coordinator to start putting application together in T2 2018 for end of year awards. Set up as Google doc and share/ask input from Staff Green Team. • Green Team to run and promote Plastic Free July in July 2018 • Waste warriors to meet with cleaners quarterly in 2018
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WATER	Current Practices	Future Goals	How we will achieve our future goals
<p>Campus Audit Investigations, Water Systems for: Mains Water, Water Collection, Storm Water, Gardens</p>	<ul style="list-style-type: none"> • All gardens use drip irrigation systems • Measuring water use through SWEP • All water off our buildings goes either into our water tanks or wetlands • Using water tanks • Mulch/compost use • Native plants in wetlands • Fence off grass areas to establish growth • Students conduct water audits • Dual flush toilets throughout school • Dishwasher in staff room is 4 star 	<ul style="list-style-type: none"> • Put signs up to remind students to use less water • Sensors on taps • New washers • Waterless urinals • Water funnels for new trees • Toilets flushed using tank water • Rain Garden off gym • Students conduct an audit to identify how to redirect water being discharged from the school to use instead for swales and rain gardens 	<ul style="list-style-type: none"> • Y7 teachers to run poster competitions as part of the Art class in T1 2018 • Sustainability coordinator to sign up for SWEP in T4 2017 • Green Student team to undertake school water audit in T1 2018 • Facility manager to confirm RW tanks are connected to toilets by end of 2017 • Green Team to research rain garden design online in T1 2018 and if possible plan weekend working bee to implement in T2 2018
<p>Curriculum How Water is embedded into learning and teaching and creating opportunities for students to participate in hands-on projects.</p>	<ul style="list-style-type: none"> • Year 7: Science – Water Waste; Maths – evaluate SWEP data • Year 8: Geography – Natural Disasters, Drought, Water Cycle • Year 9: Geography – Ocean studies and pollution; Chemistry – water quality and water testing • Year 10: Geography – Coastal Care, Global Warming and Solomon Islands • VCE: Geography – Water Environments and habitat health; excursion to Murray Darling Basin 	<ul style="list-style-type: none"> • CERES Water Activities • Contact Water Provider to do incursion on water usage during National Water Week • Use SWEP and ResourceSmart Online reports 	<ul style="list-style-type: none"> • Curriculum leaders to review T4 2018 planning to focus on Water and include CERES activities, SWEP data and excursion @ next meeting T3/4 2017

<p>Community Building links with the school community and local community organisations and groups.</p>	<ul style="list-style-type: none"> • Platypus Project with Melbourne Zoo • Working Bee with parents to clean up local waterways • Enviro Team Student Leaders attended Melbourne Water Kids Teaching Kids event • School council applied for water tanks grant • Council donated water timers for shorter showers project • Local nursery donated drought-tolerant plants for garden 	<ul style="list-style-type: none"> • Posters in kitchen/toilet etc. • Stormwater Sign design project with council to develop new stencils signage for other schools to use during National Water Week • School to host Kids Teaching Kids event • Call on parents who are plumbers to 	<ul style="list-style-type: none"> • Y7 student winners of T1 2018 poster competition to roll them out throughout school • Sustainability Coordinator to add call for plumber skills within community in T3 2017 newsletter • Enviro captains to discuss hosting KTK at school at T2 2018 assembly in preparation for September 2018, and seek out parents interested in helping
<p>Culture Whole-of-school approach to increase awareness and knowledge of water issues.</p>	<ul style="list-style-type: none"> • Year 8 Enviro Leaders attended Kids Teaching Kids Conference and presented on the event at school assembly • 4-minute Shower Challenge – staff, students and parents committed to 4-minute Shower Challenge during National Water Week and kept a log of their shower time • Student Leaders presented school water usage reports from SWEP and ResourceSmart Online during National Water Week assembly • National Water Week 	<ul style="list-style-type: none"> • Extend 4-minute Shower Challenge for 1 month instead of 1 week – and then have it be every day • Work with cleaners to switch to all non-toxic cleaning products • Design and sell a school keep bottle to prevent single-use plastic water bottles • Year 10s to mentor Year 7s on water collection projects 	<ul style="list-style-type: none"> • Sustainability coordinator to contact council / water authority to receive shower timers if available in T2 2018, for use in 4-min shower Challenge in T4 2018 • Business Manager to go through Green Procurement policy from SEMP with cleaning agency at next contract review in T4 2017 • Sustainability Coordinator to contact Bottle for Bottle to seek opportunities for partnership in T3/4 2018

E. CURRICULUM REVIEW

We are committed to including a sustainability/environmental focus into inquiry units across all year level and as part of daily classroom practices where possible.

Last updated: September 2016

Year	Name of Inquiry Unit, Curriculum Area or Learning Activity	Biodiversity	Water	Waste	Energy
7	<ul style="list-style-type: none"> Science – Biodiversity (Classification and Habitats); Geography – Endangered Species (Pollution and Habitat destruction) English – Debate on social justice and environmental issues; Economics – Sustainability and the economy e.g. logging, mining, carbon tax Drama – research assignment for recycled props for stage production; Art – recycle signs for school Science – Water Waste; Maths – evaluate SWEP data 	✓	✓	✓	✓
8	<ul style="list-style-type: none"> Science – balancing our environmental systems; Technology – Forest to Spice Rack Science – energy types, sustainable houses Home Economics – waste minimisation and Fast Fashion Geography – Natural Disasters, Drought, Water Cycle 	✓	✓	✓	✓
9	<ul style="list-style-type: none"> Science – ecosystems, biodiversity; Great Outdoors – climate change and global warming Geography – population; English – Advertising and environmental pollution Technology – using natural products and waste business assignment Geography – Ocean studies and pollution; Chemistry – water quality and water testing 	✓	✓	✓	✓
10	<ul style="list-style-type: none"> Science Life – coral bleaching, climate change impacts; Trip to Mushroom Reef marine sanctuary Geography – wealth distribution and unequal distribution of resources Art – recycled plastics and materials furniture designs; Digital Art – Food Waste video project Geography – Coastal Care, Global Warming and Soloman Islands 	✓	✓	✓	✓

VCE	<ul style="list-style-type: none"> • Gardening and produce markets • Ethics and Environment; Visual Communication – Architecture (solar panels) • Geography – ocean gyres (garbage patches) • Geography – Water Environments and habitat health; excursion to Murray Darling Basin 	✓	✓	✓	✓
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