

Summary	Duration
<p>This excursion addresses outcomes from the NSW BOSTES Stage 5 Science and Geography Syllabuses.</p> <p><i>Focus</i> – ‘Issues in Australian Environments’ (Geography) and ‘Physical World’ (Science).</p> <p>This unique and highly engaging program allows students to first hand observe a working landfill and appreciate the challenges faced by waste companies in dealing with urban waste. During the second part of the day students learn about (WSI) ‘GreenSkills Hub’ and (UWS) ‘Solar Car’. (For full day details please see the excursion itinerary below).</p>	<p>Approximately 4 hour off-site excursion to SITA Eastern Creek Waste Facility and (WSI) Nirimba ‘Green Hub’.</p> <p><i>Arrival time</i> - 9:30am <i>Departure time</i> – 2:15pm</p> <p>Arrival and departure times are guides only. Distance and bus schedules may require modifications to the timetable.</p>

About Cross Curricular Sustainability Excursions	Learning across the curriculum – New BOSTES Syllabuses / The Australian Curriculum
<p>These excursions aim to enhance everyday learning in individual KLA’s (eg: renewable energy in Science and ‘Issues in Australian Environments’ in Geography) through quality experiences students gain by visiting venues that contextualise this learning in a ‘real world’ setting. This way individual KLA syllabus outcomes are addressed, including sustainability as a cross curriculum priority of the Australian Curriculum, through which students can appreciate the connections between KLA’s and the interdisciplinary nature of ‘real word’ problems and solutions.</p>	<p><i>Cross-curriculum priorities enable students to develop understanding about and address the contemporary issues they face.</i></p> <p>Sustainability is concerned with the ongoing capacity of the Earth to maintain all life. It provides authentic contexts for exploring, investigating and understanding systems in the natural and made environments. Relationships, cycles and cause and effect are explored, and students develop observation and analytical skills to examine these relationships in the world around them to design solutions to identified sustainability problems.</p>

Stage 5 Science ‘Physical World’ Outcome and Content
<p>A student: Explains how scientific understanding about energy conservation, transfers and transformations is applied in systems SC5-11PW Related Life Skills outcomes: SCLS-10PW , SCLS-11PW , SCLS-12PW</p> <p>PW4 Energy conservation in a system can be explained by describing energy transfers and transformations. (ACSSU190)</p> <p>Students:</p> <p>b. describe how, in energy transfers and transformations, a variety of processes can occur so that usable energy is reduced and the system is not 100% efficient</p> <p>c. discuss, using examples, how the values and needs of contemporary society can influence the focus of scientific research in the area of increasing efficiency of the use of</p>

electricity by individuals and society (ACSHE228, ACSHE230)

d. discuss viewpoints and choices that need to be considered in making decisions about the use of non-renewable energy resources

Skills: QUESTIONING AND PREDICTING

CONTENT

WS4 Students question and predict by:

- a. formulating questions or hypotheses that can be investigated scientifically
- b. predicting outcomes based on observations and scientific knowledge

Stage 5 Geography Outcomes

Focus Area 5A3 Issues in Australian Environments

Focus: Ways in which geographical understanding contributes to the sustainable management of issues affecting the Australian environment.

Students learn about:

Geographical issues

- geographical issues affecting Australian environments including:
 - waste management

At least TWO geographical issues affecting Australian environments, selected from the list above (one study must include fieldwork):

- the geographical processes relevant to the issue
- the perceptions of different groups about the issue
- individual, group and government responses to the issue
- decision-making processes involved in the management of the issue
- management of the issue and implications for sustainability, social justice and equity

Students learn to:

- describe the geographical issue in relation to:
 - its nature
 - its impacts
 - the responses by individuals, groups and governments to the issue
- outline how a range of geographical issues are affecting Australian environments
- propose actions that promote sustainability
- evaluate the success of individuals, groups and the levels of government in managing the issue

Teaching and learning activities	Resources
<p>STOP 1: SITA & Global Renewables Eastern Creek Resource Recovery Park, Wallgrove Road Eastern Creek 2766. Students will first hand observe a working landfill and learn about the latest urban waste management practices and its various impacts.</p> <p>STOP 2: Recess, Nurragingy Reserve, Knox road Doonside 2767 (There is a small café there).</p> <p>STOP 3: 'Green Skills Hub', Located inside Nirimba Education Centre, Warawara Circuit, Quakers Hill 2763 (Please see map Attached). (Students in split into two groups);</p> <ul style="list-style-type: none"> ▪ Group 1 will have a 45min tour of the hub's sustainability practices such as solar and wind energy generation, as well its teaching of innovative sustainability practices related to housing construction and 'green trades' (eg; electrical & refrigeration); ▪ Group 2 students will participate in an innovative and highly interactive/hands on - 45min 'UWS Solar Car and Solar Go Cart' workshop – then groups will swap over. <p>Please note: This excursion is designed to cater up to 130 students / (2 buses), however, if required (3 buses) up to 190 students can be accommodated with some modifications to the day).</p>	<p>Provided by visiting school:</p> <ul style="list-style-type: none"> ▪ Student worksheets /clipboards ▪ Student hats ▪ Sunscreen ▪ First aid kit and student medications

Principal Mobile: 0411 051 721

Teacher Mobile: 0427 678 709

Centre: 4730 3630

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Science & Geography Cross Curricular Sustainability

(2 BUS – 130 students)

Program Itinerary

TIME	BUS 1		TIME	BUS 2	
9:30 -11:30	Group 1	Group 2	9.30 – 11	Group 1	Group 2
SITA & Global Renewables Eastern Creek Resource Recovery Park, Wallgrove Road Eastern Creek 2766.	Guided Tour of both sites	Guided Tour of both sites	'Green Skills Hub', Located inside Nirimba Education Centre, Warawara Circuit, Quakers Hill 2763 (See attached map)	GreenSkills Tour (45mins then swap with Group 2)	UWS 'Solar Car workshop (45mins then swap with Group 1)
11:40 – 12	Recess		11 – 11:20	Recess	
Nurragingy Reserve, Knox road Doonside 2767 (Small café there)			GreenSkills Hub (no canteen)		
12:15 – 1:45	Group 1	Group 2	11:40 – 1:30	Group 1	Group 2
'Green Skills Hub', Located inside Nirimba Education Centre, Warawara Circuit, Quakers Hill 2763 (See attached map)	GreenSkills Tour (45mins then swap with Group 2)	UWS 'Solar Car workshop (45mins then swap with Group 1)	SITA & Global Renewables Eastern Creek Resource Recovery Park, Wallgrove Road Eastern Creek 2766.	Guided Tour of both sites	Guided Tour of both sites
1:45 - 2:15	Lunch		1:45 – 2:15	Lunch	
GreenSkills Hub (no canteen)			Nurragingy Reserve, Knox road Doonside 2767 (Small café there)		
2.15	Depart		2.15	Depart	

BOOKING FORM

TOURS AT SITA RESOURCE RECOVERY FACILITIES



Organiser Information (representative or organisation making the booking)

Booking ID		(leave blank if unknown)
Customer		(if applicable)
Organisation		(if different from "Customer" above)
Contact Name		
Address		
Suburb	State	Postcode
Daytime Ph ()		Fax ()
Mobile Ph		Other
Email		
Website		

Group Contact Information (someone who will be arriving with the tour group/s)

Contact Name		
Mobile Ph		Other

Group and Tour Details

Number of Tour Groups		Visitors per Group		Total Visitors	
Purpose of Tour/s					
Catering Details					
Special Requirements					

Tour Itinerary

Date	Location	Start Time	End Time

Please ensure that you include the following additional items with your booking form:

- List of visitors' names and details
- Signed Safety Agreement

Completed forms should be sent to:

Gareth Jones, NSW Stakeholder Engagement Manager, SITA Australia

Email: Gareth.Jones@sita.com.au

Post: Locked Bag 5015, Kingsgrove NSW 2208

BOOKING FORM

TOURS AT SITA RESOURCE RECOVERY FACILITIES



SAFETY AGREEMENT

Unless specific arrangements have been made with your SITA Tour Guide, the following conditions apply. Please ensure that all visitors understand and agree to all of the below conditions before arriving at the site. **Failure to comply with these conditions may result in your group being asked to leave the site.**

		Group Leader Initials
i.	There may only be one tour group and one tour vehicle on site at any time.	
ii.	All visitors must be a minimum of 8 years of age .	
iii.	Tour groups must provide their own bus or similar tour vehicle, which must have a suitable seating capacity to enable transporting the entire group at once.	
iv.	Buses and other tour vehicles are not to carry more than their licensed capacity at any time.	
v.	All visitors must arrive at the site together, on board a single tour bus or other suitable vehicle.	
vi.	School groups must be accompanied by a minimum of 2 qualified teachers for every thirty students or part thereof. A parent or other assistant is not a suitable alternative to a qualified teacher. Responsibility for student behaviour rests with the accompanying teachers at all times.	
vii.	For other (non-school) groups which include visitors under the age of 18, there must be a minimum of two adults for every ten visitors under 18 .	
viii.	On arrival, tour vehicles must drive onto the weighbridge and sign-in with a list of names.	
ix.	Tour vehicles are not to use the staff entry or exit gates under any circumstances.	
x.	All visitors must remain on board the tour vehicle until instructed otherwise by SITA staff.	
xi.	All vehicles entering the site must proceed as directed by weighbridge staff, the SITA representative and/or other SITA staff, and stay on designated roads at all times.	
xii.	Visitors must not enter any area at any time without SITA accompaniment.	
xiii.	Appropriate clothing must be worn on all tours, unless otherwise advised. This includes: <ul style="list-style-type: none"> ▪ Full-length trousers or jeans – no shorts, skirts or dresses ▪ Fully-enclosed, sturdy and flat footwear – no sandals, high heels or ballet flats 	
xiv.	All visitors are responsible for their own personal safety while on tour, and a tour may be stopped immediately if any visitors behave unsafely or inappropriately.	
xv.	Smoking is not permitted at any time when visiting any SITA facility.	
xvi.	Visitors with medical conditions and/or sensitivity to dust or odour should be aware that some of our sites can at times be dusty and/or odourous. Beyond the standard personal protective equipment provided by SITA, visitors are responsible for their own health and safety and must ensure that any appropriate medications or other precautions are taken on the tour.	
xvii.	Visitors with pacemakers or other electronic implants or metallic prostheses must notify the tour guide prior to commencement of the tour.	

Agreement with Safety Conditions			
Facility Visited			
Date of Visit	Time	Booking ID	
Customer/Organisation			
Group Contact Signature			
Group Contact Name			