



Central Coast Council's Primary Schools Environment Program 2018

Let's get Drastic with Plastic Program Overview

Central Coast Council's School Environment Program aims for students to understand facts and concepts about the environment. This is achieved through encouraging exploration and awareness of their natural surrounds and ultimately a willingness to adopt behavioural changes that enable more sustainable practices.

We endeavour to create a program that inspires a lifelong curiosity, desire and empowers the young people of our community to protect the environment. This is the second year of the merged Schools Environmental Program run by Central Coast Council and continues to build on the success of the previous long running programs.

The 2018 program offers schools, teachers and students innovative, fun and engaging ways to learn about the environment and the problems it is facing. The program aims to:

- Encourage better environmental habits and behaviours in schools by reducing their impact on the environment
- Support teachers in providing creative and effective learning opportunities with their students in environmental education
- Increase student's awareness of and concern for the environment
- Encourage pride and longevity of environmental programs within the school.

Council works in partnership with the Department of Education and local schools to ensure the program complements and integrates with other environmental programs already offered and run within schools. We want to encourage and ensure the endurance of these programs for the future. Elements of the themes

may overlap with previous years to ensure continual development of students understanding of complex issues. However, themes are varied to enable continual inspiration and motivation for the schools, teachers and students.

The resources and activities within this program are designed to provide information and guidance whilst linking with the HSIE and Australian Science Curriculum. These resources can be used as take home, in class activities or be used as starting points for teachers to create their own activities and extensions.

Important Dates to remember

Term one - Friday 23 March 2018 - Registration closes for school competition entry

Term three - Friday 21 September 2018 - School competition closes for USB submission on Schools Environmental Program

- **Student projects**

- **Video/PowerPoint presentation**

Registration closes for participation in Leadership day

Term four - Monday 22 October 2018 - Leadership day event held, more information to come.

Contact

If you have any further questions about the program or would like more information about how to incorporate the theme into your school, please contact Rebecca Jaensch at rebecca.jaensch@centralcoast.nsw.gov.au





Theme

This year's theme "**Let's get Drastic with Plastic**" is a subject that can be incorporated into multiple aspects of the curriculum and other environmental programs. We want to encourage students and the school to get involved in the topic with the aim of reducing the amount of plastics used, with a focus on single use plastics within the school environment and the wider impact plastics are having on the environment.

In recent times it has become increasingly apparent of our reliance on plastics. The theme focuses on plastics that are not typically re-useable and are not easily recyclable or are used once then disposed of. These items along with other waste products can make its way into our waterways which has resulted in the Great Pacific Garbage Patch and other patches across the oceans. Some of these items are larger and could be removed. They are more obvious to see and understand the environmental impacts but what about the smaller piece which are harder to see and notice?

What is Plastic?

Plastic is made up of chains of molecules that link together. They have a very strong bond which is why they are hard to separate and turn it into something else at a molecular level. Most plastics are synthetic and made with petroleum; it uses a lot of our resources to create which can cause a lot of environmental impacts like deforestation.

What are single use plastics?

Single use plastics are also known as disposable plastics. They are designed to be used only once and then are thrown away or recycled. Some examples of single use plastics are straws, water bottles, and food packages like chips packets, balloons, cling-wrap and plastic bags. Each year worldwide we produce around 300 million tons of plastic of which 150 million tonnes is single use disposable plastics.

Why are they bad?

Single-use plastic are problematic because items like plastic bags, straws and chip packets are too flexible, soft and squishy or small to be recycled in our normal recycling system. These plastics are required to go into our red lid rubbish bin. These and other kinds of plastics often end up in landfills or become litter that finds its way into our waterways.

Plastics are a further risk to our environment. Wildlife

often mistake plastics for food and ingest the plastic which can result in the animal feeling full but ultimately will starve as the plastic takes up space in their stomach where food would normally be. Once an animal ingests plastic it can then enter into the food chain. The impacts of plastic in the food chain are only just being discovered.

All plastics can take thousands of years to break down into smaller pieces depending on the size and thickness and one piece of plastic can cause multi-generational damage to our wildlife.

Plastic is photodegradable which means it requires sunlight to break down into smaller pieces. These don't disappear and completely break down into a natural soil like substance in the environment like an organic material like a banana peel would; it continues to linger in the environment. This has and is creating more environmental problems we are yet to fully understand.

Awards

- **School of the Year:**
 - Large School Winner (over 350 students)
 - Small School Winner (under 350 students)
- **Innovation Award**
- **Most Improved School**
- **Best Performance**
- **First prize for student projects for each year group**
- **Runner-up for student projects for each year group**
- **Teacher feedback survey prize**

Awards will be presented as part of the Student Leadership Day.



Involvement

Our aim is to have all schools involved and participating at any level; partaking in a few or all components of the competition. There is no set way to implement this program it is designed to be flexible for you and your school. Activities can be incorporated into existing school curriculum or used as stand-alone class activities. Individual projects can be compulsory homework, voluntary homework or as part of class work. It has been shown that the more involved a school or teacher becomes in teaching the importance of environmental awareness the greater the foundation for student's future awareness and willingness to work for its protection. Teachers can use the resources and ideas as is, or as inspiration for your own activities that link with the theme. Schools and teachers are encouraged, and is recommended, to take photos, short videos or summaries of your schools and classes environmental activities, throughout the year. Add these to the USB submission to help with your school's entry. This will go towards the Environmental School Award, Most Improved and Innovation Award.

Activity ideas

- Creation or maintenance of environmental clubs
- Organise appropriate activities for your school on Environmental Event Days E.g. Nude food week to reduce use of single use plastic like cling wrap
- Organise appropriate activities for your class on Environmental Event Days
- Do a plastic audit of the classroom/lunchboxes on single use items
- Have an excursion to Rumbalara, the Marine Discovery Centre, Kariong Eco Gardens
- Have a Take 3 for the Sea beach visit or incursion
- Do some experiments on micro-plastics and how they float
- Do a litter audit to help prevent waste and plastics entering the storm water drains
- Get involved with a Waterwatch group

School ideas for reducing single-use plastics

- Use a reusable cup/bottle
- Using reusable sandwich pouch, food covers not using cling wrap etc.
- Not using single use containers such as small single serve sauce containers, single use water bottle, drinking straws or plastic knives, forks or spoons (or switch to bio degradable ones made from wood which can be composted)
- Use old fabric material in gardens to hold vines up instead of plastic ties
- Buy seeds in paper packaging instead of seedlings in plastic pots

- Learn the art furoshiki which uses material to wrap gifts or reuse old wrapping paper
- Buy bulk food products and use paper bags to serve them at the school canteen
- Line class room bins with old paper instead of plastic bags

General tips for reducing waste stream at school

- Print double sided
- Reduce number of subscriptions between classes and instead rotate them to reduce double ups
- Take school left overs home
- Have a nude food week or no trash Tuesdays and keep score for an end of year prize or award.

Creative performances

This is another component idea using creative engagement for students. Schools are asked to record their performances and submit it electronically via judging USB stick provided in early Term Three. This goes towards the Performing Excellence Award.

- School performance or presentation through dance, theatre, song or public speaking; this can be done either in part of an existing group or program while using the theme or create a whole new group.
- Create a student awareness video encouraging students to avoid using single use plastic, create a short video to be played at assemblies or role call to encourage more environmentally friendly activities and awareness.
- Both can involve just one student, a group or the whole class.

Student projects

These projects are offered for each stage level. The topic for each project has been designed to be engaging and fun. The project can be offered to students as a class activity, compulsory homework assignment or voluntary homework assignment.



Student projects are open to any primary school student in the Central Coast region. There is a different project for each primary stage. Schools can present these projects to students in the way that best suits their students. Possible options are:

- Take home compulsory project
- Take home voluntary project
- Class activity or individual activity (projects submitted as a class project will not however be eligible for an individual student prize).

For each grade level there will be a 1st and 2nd prize (for the region not per school). Projects need to be submitted to Council by Friday 21 September 2018. Schools are asked to submit only two projects per year level. More details can be found in the accompanying Program Terms and Conditions. Please ensure all projects have the students name age and year level clearly marked on it.

Stage 1 Project

Project Create an awareness poster for home or school around single-use plastic.

Awareness poster and signs information

Make an informative and creative poster that you can post around the school or home to help reduce the amount of single-use plastics used. On the poster you could have;

- Pictures of what single use plastics are,
- What you could use instead of disposable single-use plastics,
- If you do use single-use plastics how should you dispose of them,
- What are the environmental impacts single-use plastics cause on the environment?

Judging criteria

- Size: Keep the size no larger than A2
- Creativity: Make the posters eye-catching and stand out so others can see it in the playground
- Message: Have a clear message keeping with this year's theme
- Presentation: Remember, don't put too much information on the poster so it is not too hard to read

Important information

- Project Competition is open to all students Years K-2 in the Central Coast Council region
- Schools can submit two projects per year level to Council for the project competition
- Due date to Council is Friday 21 September 2018
- Please include on the project
 - Name
 - Year level (not stage level)
 - Age
 - School

Stage 2 Project

Project Create a science report on the schools or canteen or classrooms waste.

Report information

Do a waste or litter audit of the school or canteen or classroom and recorded the answers to these questions;

- Tally how much recycling was found for the five recycling categories.
- Was all the plastic recyclable or were some soft and squishy?
- How much of the rubbish was single-use plastic items? Take photos of some of the items you found
- What were the most common items found? What could be used instead to help reduce the amount of rubbish and single-use plastics?

Put your results into a poster or report.

Judging criteria

- Posters
 - Size: Keep the size no larger than A2
 - Creativity: Make the posters eye-catching and stand out so others can see it in the playground
 - Message: Have a clear message keeping with this year's theme
 - Presentation: Remember, don't put too much information on the poster so it is not too hard to read
- Report Style
 - Presentation: Is it easy to read and neatly set out
 - Message: Have a clear message keeping with this year's theme
 - Information: Include statistics you have researched
 - Data collection: Don't forget pictures of you working along the way and collecting your data and include graphs or tables of your results for your report

Important information

- Project Competition is open to all students Years 3-4 in the Central Coast Council region
- Schools can submit two projects per year level to Council for the project competition
- Due date to Council is Friday 21 September 2018
- Please include on the project
 - Name
 - Year level (not stage level)
 - Age
 - School

Stage 3 Project

Project Create an ocean cleaning device diorama.

Diorama information

The ocean is where a lot of our plastic ends up when it is not properly disposed or recycled. Design an ocean cleaning device that could help remove plastics from the ocean. Create a diorama about the size of a small box or shoe box or create a poster.

- Think about how will it be powered,
- How will it filter the small plastics,
- How will it look and how big will it be in real life?
- How much will it cost to make?
- How will it protect wildlife?
- Keep a journal of your ideas and any problems you might have encountered.

Be creative and let your imagination run wild. Look at these links for ideas from other people who have created ocean cleaning devices.

Links

- The ocean clean-up
<https://www.theoceancleanup.com/>
- The sea bin
<http://www.abc.net.au/news/2015-12-20/seabin-designed-by-australian-surfers-to-start-cleaning-up-ocean/7044174>

Judging criteria

- Posters
 - Size: Keep the size no larger than A2
 - Creativity: Make the posters eye-catching show the details of your device and how it will work. How original is the idea?
 - Message: Have a clear message keeping with this year's theme

- Presentation: Is it neatly presented and are you able to clearly see the cleaning device and how it could work?
- Information: Include any statistics or information you have researched that your device can help clean up or help the environment.
- DioramaSize: size of a shoe box
 - Creativity: Use the shoe box in a creative way to show the details of your device and how it will work. How original is the idea?
 - Message: Have a clear message keeping with this year's theme
 - Presentation: Is it neatly presented and are you able to clearly see the cleaning device and how it could work?
 - Information: Include any statistics or information you have researched that your device can help clean up or help the environment.

Important information

- Project Competition is open to all students Years 5-6 in the Central Coast Council region
- Schools can submit two projects per year level to Council for the project competition
- Due date to Council is Friday 21 September 2018
- Please include on the project
 - Name
 - Year level (not stage level)
 - Age
 - School



Competition entry

To be eligible for competition and any of the awards the school must submit a USB to Council. This USB will be sent out during Term Three by Council. All student projects from each year must be clearly labelled and sent to Central Coast Council: 2 Hely Street Wyong NSW 2259 or 49 Mann Street Gosford 2250 with the USB submission. All submissions must be in by Friday 21 September 2018. Judging of school submissions will take place in the Term Three school holidays and the awards will be presented at the Leadership Day in Term Four. For further more information on how entries will be judged please refer to the Terms and Conditions attached with this package.

will also be accompanied by one of the accompanying school teachers and an activity leader and will rotate through a number of activities. At the end of the day schools will be given the resources needed to run these activities back at their schools.

The aim of the Leadership Day is to give students the resources and skills to be able to facilitate environmental activities with fellow students back in their school. This could be done as a one off activity or part of a larger school environmental day.

More details will be sent out to schools closer to the date.

Leadership Day

The Leadership Day will be held during the beginning of Term Four, to enable schools the maximum amount of time to implement environmental programs and complete the school competition submissions. This also enables schools to have the remainder of Term Four for students to pass on their knowledge learnt at the Leadership Day and to run some of the activities. Schools will be invited to register four year five students for this event.

Students attending the Day will be divided up into groups of around 16 students. Each group will comprise of students from different schools but each child will have at least one student from their school with them. Each group



Teachers Resource Pack 2018

Classroom activities ideas

School Waste Management

Create a waste management plan for the classroom or school. This can start off as an experiment over a period of time to see if the average amount of waste created can be reduced. Start off by auditing your classroom bins. Students can help sort items into recyclable categories, waste and organic material. Weigh the total of each group and record the weight. Ask some questions about the waste stream. What were the most common items? Were any of them single use plastics? This could be a focus during environmental week etc. Involving students in learning about and participating in good waste management practices will benefit the school and students and can link this knowledge with other school activities and programs. Other activities students can be involved in

- dealing with organic waste with compost bins, worm farms and school chickens
- ensuring storm water is litter free
- waste is sorted for recycling

Example: <https://www.coolaustralia.org/activity/aussi-litter-audit-lower-primary/> or <https://www.coolaustralia.org/activity/aussi-litter-audit-upper-primary/>

Behind the news (BTN) – Plastic packaging teacher resource

The three minute BTN looks at the amount of unnecessary packaging and single use plastics used in our supermarkets and the environmental impacts and how some primary school students are trying to help.

Video link: <http://www.abc.net.au/btn/story/s4422480.htm>

Teacher resource: <http://www.abc.net.au/btn/resources/teacher/episode/20160315-plasticpackaging.pdf>

Behind the news – War on Waste teacher resource

BTN has summarised a War on Waste Schools to create a three minute video showing how one school is looking at changing their ways with single use plastics.

Video link - <http://www.abc.net.au/btn/story/s4689455.htm>

Teacher resource - <http://www.abc.net.au/btn/resources/teacher/episode/20170627-warenwasteschool.pdf>

Micro-plastics

Plastics do not break down like organic materials they break up into smaller pieces over time. The environmental impacts of micro-plastics are only just becoming known to us. Single use plastic items are likely to end up as litter making its way into our oceans. Understanding what happens next to plastics that

are 'out of sight out of mind' can further help our development and ability to protect and prevent further environmental damage.

Link: <http://www.scienceinschool.org/content/microplastics-small-deadly>

United Nations - Adopt Sustainable Development Goals

Global Goal is a United Nations program encouraging young people and children to work together to achieve these 17 Global goals by 2030. Goals specifically for this theme are climate action, sustainable cities and communities, life below the water, life on the land and responsible consumption and production. Also contains printable posters and teacher resources.

Link: <http://worldslargestlesson.globalgoals.org/#the-goals>

Cool Australia

A great website for teachers with teacher resources, student activities, videos and other resources for classroom activities. Curriculum materials are sorted by resource type, year level, topic and subject. The site includes a specific Waste reduction and plastic topics with many lesson plans and worksheets.

Link: <https://www.coolaustralia.org/>

Plastic Free July

This website has a lot of alternatives and ideas for single use/disposable plastics, other ideas to live plastic free and case studies about how other facilities reduced their plastic consumption. You could also register your school to a plastic free July event.

Link: <http://www.plasticfreejuly.org/schools2.html>

Take 3

This website provides education incursions on how to reduce plastic pollution and help clean up after ourselves along with news updates and interviews.

Link: <http://www.take3.org/>

Community Environment Network (CEN)

CEN is a community group that works towards ecologically sustainable development by promoting community monitoring of the environment and creating awareness for the environment and sustainability. Their website contains a number of educational resources and projects such as the Kariang eco gardens, Waterwatch and Land for Wildlife.

Link: <http://www.cen.org.au>

Nude Food Day

While also promoting healthy eating and nutrition this multifaceted day or week also promotes the reduction of packaging and single use plastics creating more awareness for students on both subjects.

Link: <https://www.nudefoodday.com.au/nudefoodgrant/>

National Geographic - Education Blog Kids Tackle Plastic Pollution

Guest youth blogger writes about plastic and its environmental impacts through information by 'one more generation' with teacher resources.

Link: <https://blog.education.nationalgeographic.org/2016/04/20/kids-tackle-plastic-pollution/>

Ocean and Coastal Care Initiatives (OCCI)

This site aims to conserve the ocean through education, awareness restoration and protection. OCCI completes education programs based around our oceans and their protection.

Link: www.occi.com.au

TerraCycle

TerraCycle is a unique company that recycles products that are considered hard to recycle. It has free programs to help recycle items not accepted in our normal recycling.

Link: www.terracycle.com.au

Environmental videos

Please view these before showing as some videos may be confronting for some students and you, as their teacher, can judge if this is appropriate for your students.

War on Waste

This is a series with a wide variety of topic regarding waste. These videos can be played as a whole or as short three to ten minute long videos. Ranging from single use coffee cups, plastics waste in Sydney, to excess food waste.

Video link: <http://www.abc.net.au/ourfocus/waronwaste/>

Catalyst video – Micro-plastics

This video discusses microbeads as single use plastic product and other micro-plastics and its impact on the environment.

Video link: <http://www.abc.net.au/catalyst/stories/4424996.htm>

TED-Ed Talk - What really happens to the plastic you throw away

This four minute video goes through three different life cycles of plastic bottles and shows the environmental impacts.

Video link: https://www.youtube.com/watch?v=_6xINyWpB8

National Geographic – Kids short film

This four minute video is about Hawai'i and the school students talking about Styrofoam and its impact on Hawai'i and the world.

Video link: <https://www.youtube.com/watch?v=hKfV9IquMXA>

United Nations – Plastic Ocean

Eight minute video talks about the impact of plastic on Lord Howe Island and the shearwater birds migrate there to raise their young. Scientists show dissections of birds and the plastic contents of their stomachs and what the conversion to what that would be for human adult.

Video link: https://www.youtube.com/watch?v=ju_2NuK5O-E

TED-Ed Talks – The nurdles quest for world domination

Nurdles are the plastic pellets used to create other plastic items. This five minute video shows how commercial plastic from factories can end up causing environmental problems.

Video link: <https://www.youtube.com/watch?v=KpVpJsDjWj8>

Small Green Steps E-Book – Archie cleans up the beach

Book to help children learn about plastic pollution designed for three to six year olds.

Link: <http://www.smallgreen.com.au/electronic-books.html>



Central Coast Council
Learning Community Program



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