

7 WAYS IN 7 DAYS

A KIDS GUIDE TO SAVING OUR COASTLINE
FROM THE RAVAGES OF CLIMATE CHANGE





climate change & the coastline

Australia is famous for its beautiful coastline and each year people from around the world flock here to experience our beaches and coastal environment. Australians also love living near the water, with over 80% of us living in the "Coastal Zone". However, our coast is a vulnerable environment which is facing major pressure from climate change as well as other factors including:

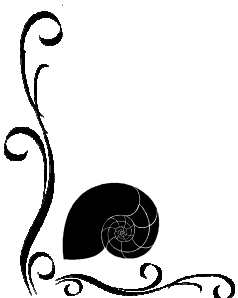
- Fishing
- Population growth and urbanisation (people moving to cities)
- Pollution
- Mining—Including the removal of sand, as well as the effects of inland mining on water quality.
- Tourism
- Invasion of foreign plant and animal species into the marine and coastal environment.

The impact of climate change on our coast will be made worse by these human-created pressures. Not only will our coastline suffer more variability in climatic conditions causing heatwaves, floods and storms but will also be impacted by :

- **Sea level rise**, resulting in a receding shoreline.
- **An increase in the number of storms and their severity** (including tropical cyclones!), resulting in erosion of beaches, more flooding and damage caused by severe weather.
- **Ocean acidification** - When the ocean becomes more acidic and eats away at shelled marine life (crabs, oysters etc) and coral.
- **Rising ocean temperatures**, which stresses marine life, changes where they live and messes up whole eco systems.
- Changes to **ocean currents, wave size and direction**.

We need to act now if we are to preserve our precious and unique coastal environment. Climate change is occurring *now* and the excess of greenhouse gases already in the atmosphere means that some consequences are unavoidable. But there is a way **YOU CAN HELP...**

Read the tips in this booklet and start doing these easy things every day. Remember that the biggest challenges are overcome when many people, like you, step up and say "*yes, I can make a difference!*"



1. save electricity



How?

- Switch off lights when you don't really need them on, such as during the daytime, when you're watching TV or not using a room.
- Turn off your computer, DVD player, Playstation and television when you aren't using them. Don't leave them on standby and turn off at the powerpoint when possible.
- Think about all the things you need from the fridge or freezer before you open it. Each time you open the door you lose cold air and use more electricity to make it cold again.

Why?

Making electricity makes a big impact on climate change, but there are easy steps you can take in your everyday life to help make a difference.

Most electricity, particularly in Australia, is powered through the burning of non-renewable resources like coal, oil and natural gas, which all have carbon in them. When these fossil fuels are burned to create electricity, Carbon Dioxide (CO₂) is released into the atmosphere, and it is the excess of CO₂ in the atmosphere that creates the enhanced "greenhouse effect", which is changing our climate.

2. recycle & reuse

How?

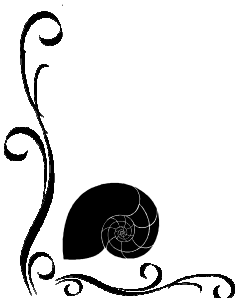
- Make sure you put your plastic, glass, paper/cardboard and aluminium in the recycling bin.
- Do you have a compost bin (or worm farm) at home? If not, speak to mum and dad about starting one for your organic food scraps and green waste.
- If you have a stash of plastic shopping bags at home, take them into your local Coles supermarket for recycling. Remind mum or dad to take reusable bags when shopping, or buy some of the new biodegradable bags.

Why?

Everything in our homes has originally come from a natural resource, such as timber, coal, water, oil, bauxite, and limestone. These resources make items such as steel, paper, glass, and plastics. Recycling these is important because

- It reduces landfill and the gases emitted by it.
- It reduces the demand on our precious and limited natural resources
- Mining and deforestation emit lots of greenhouse gases
- Deforestation means there are less trees to filter the greenhouse gases like CO₂ out of the air.

Making products from recycled materials also produces less pollution, including greenhouse gases, and consumes less energy than making from raw materials. For example, making recycled paper can use up to 50% less energy and 90% less water than making it from trees, and Recycling aluminium to make cans saves 95% of the energy used to make the cans from bauxite (Australian National University).



3. save water



How?

- Take shorter showers. Don't just stand under the water daydreaming – wash yourself and get out!
- Most people now have a half-flush button on their toilets, so make sure you only use the full flush when you really need to.
- Do you really need the tap on full-ball when you brush your teeth, wash your face or rinse a cup or plate? Probably not. Turn the tap on gently and you'll use half as much water than when you blast it out of the tap.

Why?

There will never be any more water on Earth than there is now. No new water is being made and water cannot escape from the Earth. The water we use is recycled over and over again through the water cycle.

As the world's population continues to grow (1.6 billion in 1900, 6.7b in 2008, predicted 9.5b by 2050), increasing pressure will be placed on our limited supply of water, which is why we need to think twice about how we use it and come up with new ways to conserve it.

On top of this, climate change is wreaking havoc on the world's weather patterns, causing droughts in some countries and flooding in others to become more severe than ever before. As an already dry country, Australia needs to learn better water-saving habits to adapt to a water supply facing *a lot of uncertainty!*

4. leave the car at home

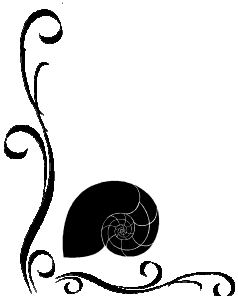
How?

- If you're going to a friend's house and they live close, think about walking or riding your bike. For safety, mum or dad could walk with you, or call your friend before you leave and tell them you're on your way and when you should arrive.
- Take public transport when possible. This reduces the number of cars on the road, meaning fewer emissions.
- Do any of your school friends live nearby? If you normally get a lift to school, why not car-pool with other kids? That way everyone can go in one car.

Why?

The fuels we use to power our cars, like petrol, is made from crude oil, a fossil fuel, and when this is burned in the car's engine, it releases many toxins into the atmosphere, including CO₂.

To understand just how much carbon dioxide is released from cars, 2.3 kilograms of carbon dioxide is released from the exhaust for every litre of petrol used by a car. That means a 50-litre tank will release about 115 kg of carbon dioxide (Det. of Primary Industries, Parks, Water and Environment, Tasmania). Now multiply that by every car in Australia!



5. don't waste



How?

- Don't be greedy! Only buy or take from the cupboard what you know you can eat.
- Don't complain about eating leftovers. It's very wasteful when leftover dinner needs to be thrown away, so make sure it gets eaten the next night or for lunch.
- Hand down (wearable) clothes and toys to your younger brothers and sisters, cousins or friends or give them to a charity like The Salvation Army or The Smith Family.

Why?

Everything we buy or use including food, toys, computers, iPods and clothing comes from something else – it doesn't just appear magically. The raw materials needed to make these items comes from our natural environment, whether it be plantations, oil, coal, metal, timber or other resources.

Mining, growing, harvesting, producing and transporting these resources to make our food and other "stuff" has an enormous impact our environment and is a major factor driving climate change. When we buy things that we don't need, don't use or throw away quickly, we are causing our natural resources to be raided and wasted, emitting lots of greenhouse gases and other toxins.

6. be food wise

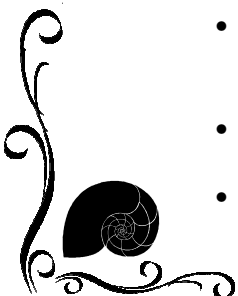
How?

- Do the best you can to have a "litter free lunch" and bring food that doesn't come in plastic packaging. One of the easiest things to do is use a paper bag instead of cling wrap.
- Buy food grown, made or produced locally. Imported and out-of-season foods need to travel a long, long way from the tree to our plate, meaning more emissions from transport.
- Start a veggie garden at home. It's lots of fun and has the least "food miles" of all! Try growing tomatoes, carrots, lettuce or herbs—or whatever grows well in your area.

Why?

The distance food travels in order to reach our plate is known as "food miles", and the emissions created by this transportation adds to our carbon footprint just like our cars and coal powered electricity. According to the first Australian look in to food miles (CERES)...

- A shopping basket filled with 29 common groceries travelled a total 70,803km, which is nearly twice around the circumference of the Earth (40,072 km)
- Of this 70,000km, less than one-third was from "road miles", which shows the huge distance caused by importing foreign food. Just four imported items accounted for nearly 50,000 kilometres.
- It's not just the food that matters - In packaging alone, tin cans and milk cartons had travelled over 25,000km
- The greenhouse gases generated by all the trucks carrying these 25 items on any given day is the equivalent of 2,830 cars driving for an entire year!



7. spread the word



How?

- If you see your parents doing something that's not environmentally friendly, tell them nicely. You can make some suggestions based on the tips you've just read. Remember, when they were kids, things like this weren't taught at school.
- Ask your teacher to print an A3 copy of this booklet for the class to share and read, or hang as posters. Printing uses paper, energy and ink—so don't make lots of copies.
- Forward this information in an email to all your friends.

Why?

Fighting climate change is not a one person job. To make a real difference and prevent the potential devastation of climate change we need to work together locally, nationally and globally... But it can start with *YOU*.

The suggestions in this booklet are just the start and are so easy that they can be done by anyone. Making these small changes in our everyday lives will make a difference even when done by one person... but when done by many, they can change the world.

