



Say NO to Plastic Bags

Lesson aims

How many plastic bags does your family use? How can you play a part in reducing the number of plastic bags used in Australia?

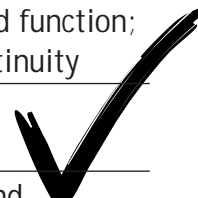
Students will complete Clean Up Australia's *Say No to Plastic Bags Household Survey* and learn about the impact of plastic bags on the environment. They will write a story on their life as a plastic bag and learn about the long life cycle of the plastic bag. Students will research and discuss alternatives to plastic bag use.



Learning outcomes

As outlined in the National Profiles:

Studies of Society and Environment	Place and Space	Features of places; People and places; Care of places
	Resources	Use of resources; Management and enterprise
	Natural and Social Systems	Natural systems; Economic systems
Science	Life and Living	Living together; Structure and function; Biodiversity, change and continuity
	Natural and Processed Materials	Materials and their uses; Structure and properties
Mathematics	Chance and Data	Collecting data; Displaying and summarising data; Interpreting data
English	Writing	Texts; Contextual understanding; Linguistic structures and features; Strategies





**SAY NO TO
PLASTIC BAGS**

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Background information

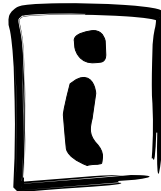
Plastic bags have only been widely used in Australia in the past few decades but have had a devastating impact on our natural environment. Each year on Clean Up Australia Day plastic bags are identified as a major source of rubbish throughout Australia.

Did you know?

- Plastic bags are made from polymers derived from petroleum. Just 8.7 plastic checkout bags contain enough embodied petroleum energy to drive a car one kilometre.
- Australians use around 6.9 billion plastic bags per year, nearly half of which are supermarket plastic bags. If they were tied together they would stretch around the world 42.5 times.
- Australians throw away 6.67 billion plastic bags a year. One third are thrown away after a single use.
- Plastic bags will last in the environment up to 1,000 years. Because plastic bags last so long, the number of plastic bags in the litter stream increases each year.
- Plastic bags can entangle and harm aquatic and terrestrial animals. In fact the World Wide Fund for Nature estimates that more than 100,000 whales, seals, turtles, and birds die every year as a result of plastic bags.

What can you do?

- **Refuse:** there are alternatives to plastic bags such as calico, string bags, boxes and green bags.
- **Reduce:** when shopping, decline bags. You may be able to put your shopping into another bag. Aim to reduce your use of plastic bags by 50%.
- **Reuse:** there are many ways of reusing plastic bags and other bags for example packing school lunches.
- **Recycle:** find out where you can recycle your bags. Currently only 3% of bags are being recycled and this number needs to increase to 50% by the end of 2004.



Sources & further information

Clean Up Australia – Say NO to Plastic Bags action and awareness campaign. Plastic bag facts, information for schools, tips for retailers and consumers.

www.cleanup.org.au

www.noplasticbags.org.au

Environment Australia – Plastic Bag Challenge: Provides tips to reduce your use and ways to recycle your plastic bags.

<http://ea.gov.au/industry/waste/plastic-bags/challenge.html>

Plastics and Chemicals Industries Association: This web site provides information on plastics and research into plastic recycling.

www.pacia.org.au

World Wide Fund for Nature:

Information on the effects of plastic bags on birds and marine animals.

www.wwf.org.au



Classroom activities

1. My life as a Plastic Bag

- Students write a story about their life as a plastic bag. Students should consider the life cycle of a plastic bag as well as the range of types of plastic bags and their uses. Some things to consider include:

What were you made from?

What were you made for?

Who were you made for? (i.e. a supermarket, fashion shop, corner shop.)

What did you hold?

Where did you go?

Did someone take you home?

Were you stored somewhere?

Where did you end up?

- Encourage students to consider positive environmental outcomes in their stories. Examples include:

The happy bag that was recycled with his friends to make new bags, garden stakes, flower pots, outdoor seating or stationery items.

The sad bag that ended up at the rubbish dump because he wasn't recycled.

The lonely bag that got blown away and was stuck on a tree for weeks because a litterbug dropped her.

The hurtful bag that was trapped in a whale's stomach.



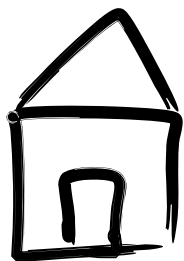
2. Worksheet

Ask students to complete *Worksheet: Clean Up Australia's Say NO to Plastic Bags – Household Plastic Bag Survey*.

- Allow one week for students to complete the survey.
- When completed the survey will provide data that students can compare and add up to provide an overall class average. As a class, tally up the results of the plastic bag audit and analyse the results.
- Please also return a summary of your results to Clean Up Australia.
- As part of the survey students were asked if they were surprised at the number of plastic bags collected during the week. Discuss what expectations students had on their usage of plastic bags.
- Students were also asked to consider what they could do in their home to reduce the number of plastic bags. Go through the students' answers and ask the class to think of alternatives to plastic bags or ways of reducing the number of plastic bags they use.

3. Alternative Materials

Encourage the students to think of materials that could be used instead of plastic bags and how these materials are more environmentally friendly. You may want to write a list of alternatives to use when shopping and at home.



Extension / Home-based activities

Lower Primary

Create Textures

Reuse plastic bags by wrapping them around toilet paper tubes or paint rollers. Roll over wet paint-covered paper to create textures.

Paper Mache

Inflate a plastic bag and tie it shut, then cover with paper mache for piñatas, replicas of globes or the solar system.

Tie-A-Thon

Ask students to bring in plastic bags from home. Tie the plastic bags together and see how many plastic bags it takes to reach around a classroom, hall or school oval.

Bean Bags

Plastic bags can be used to stuff beanbag covers. Make some colourful beanbag covers and get students to tie the plastic bags into balls and put them into the beanbags. They could be a great addition to the classroom's reading corner.

Middle Primary

Art Work

Reuse plastics bags by cutting them into strips and weaving, braiding or knitting together. You could even try making friendship bands.

Landfill Estimation

Estimate the difference between the mass of plastic bags and paper sacks when tossed in the landfill. Calculate for a household per year, and for an entire city per year.

Ecology Time Capsule

Try testing the biodegradability of plastic bags over several months. Bury outdoors and dig up after three months.

Upper Primary

Plastic Bay Survival

Test several types of plastic bags in different environments to determine how they are affected by direct sunlight; a mulch pile (which simulates an active landfill); a leaf pile (which simulates a dry landfill); and salt water (simulates an ocean).

How Are Plastic Bags Made?

Research how plastic bags are made. What process do they go through and the resources it takes to make them.

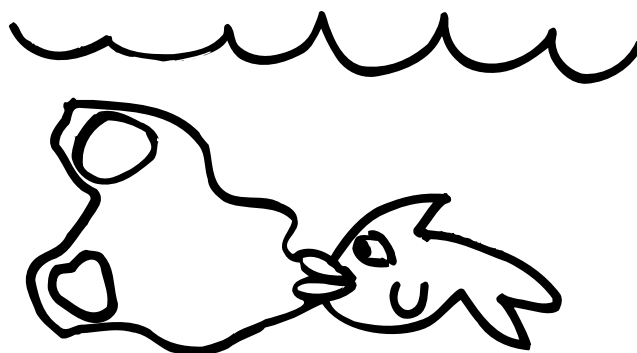
All

Plastic Bag Free Day

Hold a 'Plastic Bag Free Day' at school. You will need to develop a campaign to encourage students to participate in the day. Talk to your local supermarket and council about holding a plastic bag recycling day. Students could bring in their plastic bags from home and see how many the school can collect.

Competition

Students can run a competition for the best design of a plastic bag alternative such as a calico bag. The bags could be made by the students or bought. These bags could be sold to family and friends to raise money for the school.



Worksheet: Clean Up Australia's Say NO to Plastic Bags - Household Plastic Bag Survey



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Instructions

1. Collect all the bags you currently have in your home (hidden in the cupboards, kitchen drawers etc).

How many plastic bags do you have at the start of the week?

2. How many bags do you think your family will collect this week?

3. Plastic Bag Diary:

Ask the adult in your house to keep the plastic shopping bags they collect each day. Each day count the number of plastic bags and write down the number in the table below. Add the number together at the end of the week and bring it into school.

Number of bags	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Total
Plastic bags received								
Plastic bags reused*								
Plastic bags used as bin liners								
Plastic bags taken back for recycling**								
Alternative bags used i.e. calico / paper								
Plastic bags you saw as litter on the way home								
Totals								

* Reusing plastic bags includes using them again in supermarkets, to freeze food, to pack lunches, store clothing. Using plastic bags as bin liners is not classified as a reuse.

** Central collection point includes plastic bag recycling bins at Coles, Woolworths, Safeway and Bi-Lo stores.

