Lesson aims

Students will conduct a litter audit of their school and consider concepts of personal responsibility and active citizenship as they relate to the litterbug. They will investigate the environmental and social impacts of littering, and develop an appreciation of the resource value of litter.

Learning outcomes

As outlined in the National Profiles:

<table>
<thead>
<tr>
<th>Studies of Society and Environment</th>
<th>Place and Space</th>
<th>Features of places; People and places; Care of places</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>Use of resources; Management and enterprise</td>
<td></td>
</tr>
<tr>
<td>Natural and Social Systems</td>
<td>Natural systems; Economic systems</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Chance and Data</td>
<td>Collecting data; Displaying and summarising data; Interpreting data</td>
</tr>
<tr>
<td>The Arts</td>
<td>Creating, Making and Presenting</td>
<td>Exploring and developing ideas; Using skills, techniques and processes Presenting</td>
</tr>
</tbody>
</table>
To litter is to illegally dispose of waste, whether intentionally or by accident. In the past, it was legal to throw waste into the street! This became a problem when people began living in close proximity as cities developed during the Industrial Revolution of the 1800s. Unsanitary disposal of waste encouraged the breeding of insects and rats that carried disease rapidly through the urban population. The government took action to remove rubbish from city streets to prevent the spread of disease.

Today, there are laws against littering in each State and Territory of Australia. The anti-litter laws not only protect us from the spread of disease, but also protect the environment and amenity.

What are the impacts of littering?
The actions of an individual litter bug impact upon the whole community.

Environmental Impacts
Waterways can become polluted from litter. Hazardous substances can leach from items like batteries and accumulate in the bodies of aquatic animals and their predators. Birds can become trapped in plastic bags and suffocate. Turtles and whales can become entangled in littered fishnets and drown. Mammals and birds can mistake litter for food, and choke during ingestion.

Animals that rely upon clean water to drink can become sick from pollution. On land, an apple core thrown into the bush can promote the spread of weeds that degrade the habitat of endangered species.

A cigarette butt thrown out the car window can cause an uncontrollable wildlife, killing native fauna and flora.

Human Health Impacts
Humans cannot swim in polluted waterways. Indigenous communities cannot access clean water from polluted waterways and cannot consume fish they catch from polluted watercourses. People can step upon used needles and contract diseases. Items falling from the back of vehicles can cause traffic accidents.

Litter can block the drainage system and cause flooding during heavy rain. Flooded drains can endanger human lives and provide ideal an breeding ground for disease-carrying insects such as mosquitoes in tropical climates.

Economic Impacts
It is estimated that it takes ...as much money to clean up litter as it does to collect waste from rubbish bins and take to landfill. When beaches are littered with cigarette butts, tourist businesses can suffer. An oil spill – even if it is an accident – destroys the livelihood of fishermen.

How much litter is in Australia?
Every year since 1990, Australians have removed rubbish and litter from the natural environment on Clean Up Australia Day. In the 2010 event, Australians picked up an estimated 15,560 tonnes of rubbish from beaches, waterways, parks and bushland. This represents a small proportion of the litter that builds up in our natural environment year-round.

The single most common litter item in Australia is the cigarette butt. Other common forms of litter include paper, food wrappers, fast-food packaging, bottle caps, glass pieces, glass alcohol bottles, plastic straws and soft drink bottles.
The Litterbug

These litter items take a long time to break up in the environment:

- Glass bottles: 1,000,000 years
- Plastic bags: up to 1,000 years
- Aluminium cans: 80-100 years
- Plastic containers: 20-30 years
- Cigarette butts: 1-5 years
- Orange & banana peels: 2-5 weeks

Why do people litter?

With 588,000 volunteers involved in Clean Up Australia Day in 2010, it is clear that Australians want to remove litter from the environment. So, why is it that some people become litterbugs?

Some of the explanations offered as to why people litter include:

- They don’t understand the impact of their actions on the environment
- They think they won’t get into trouble because they see that anti-litter laws are not often enforced
- They think that there is already a lot of litter at a site so their contribution will make no difference
- They believe that it is okay to litter if there is no bin provided
- They think it is okay to put litter onto an overflowing bin because, although it is clear that the litter item will escape, they have followed the rules
- They think the item does not constitute litter because, for example, it is a biodegradable piece of fruit
- They see their peers litter so they think it is okay to do the same
- They do not care about the environment because it is not their personal property

Values

Two main values underlie the litterbug’s actions.

1) Lack of personal responsibility

In most cases, people do not ‘trash’ their own homes or personal property, but they may litter in public areas. The litterbug believes that they are not responsible for the health and safety of the community.

Clean Up Australia Day is built on very different values. It is built on the idea that Australians are jointly responsible for the state of our environment.

2) Litter has no value

The litterbug would never throw money out the window but might throw away lolly wrappers or old shoes because they are no longer needed. Even if the litterbug changed their ways and put food wrappers in the bin responsibly, is this enough? We need to consider whether what we throw away has a resource value.

Aluminium cans are a good example of a commonly littered item with an important resource value. The waste pyramid tells us to refuse, reduce, reuse and recycle in that order. Only when we cannot pursue these options should we dispose of waste into landfill. Because aluminium cans are not easy to re-use, we should recycle them. They can be recycled indefinitely. In this way, we reduce the volume of waste going to landfill. We also save energy and materials that would be required to manufacture new aluminium cans.

In South Australia, people can pick up littered aluminium cans and other beverage containers and receive cash upon returning them for recycling. There is less incentive for people to litter cans in the first place because they are worth money. This system is called a container deposit scheme.
Sources & Further Information

Clean Up Australia’s flash game on resource recovery.
This game is a fun way for primary students to learn about the impacts of litter on rivers, and the benefits of recycling. There is a version of this curriculum-based game for students in all states and territories.
www.cleanup.org.au

Clean Up Australia
An annual rubbish report is produced after each Clean Up Australia Day
www.cleanup.org.au

NSW Department of Environment and Climate Change
Information on waste avoidance and resource recovery
www.environment.nsw.gov.au

ResourceSmart
Information on how to reduce your carbon footprint
www.resourcesmart.vic.gov.au

Victorian Litter Action Alliance
An anti-litter alliance between local government, industry and community
www.litter.vic.gov.au

Reuse Centres
Reverse Garbage, Sydney, Adelaide
Sells industrial discards to the community for practical and creative purposes
www.reversegarbage.org.au

Reverse Garbage, Brisbane, Melbourne
Sells industrial discards to the community for practical and creative purposes
www.reversegarbage.com.au

The Bower Reuse and Repair Centre, Sydney
Sells goods diverted from the municipal waste stream
www.bower.org.au

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Classroom Activities

School Litter Audit

1. Discussion
Ask the class to define littering. Have any of them ever littered? If so, what was littered and why? What were some of the possible impacts of the litter?

2. Is litter a problem in the school?
   • Draw a map of the school playground and have students mark where litter accumulates and where rubbish bins / recycling stations are located.
   • Divide the class into small groups. Using the points marked on the map, select a destination for each group to search for litter. Instruct students to collect and analyse all litter located within the selected areas. Have them measure the distance from the litter to the nearest rubbish bin.
   • Allow 15-30 minutes for litter collection.

3. Collection results and analysis
   • Have each group count and categorise the litter items.
   • Allow each group to present findings to the class.
   • Record class results on the board.

4. Discussion
   • Which locations yielded the most litter items, and why?
   • Do any of the items have a resource value? Can they be reused or recycled?
   • What rules against littering exist in the school? Are they adequately enforced? What are some of the difficulties of enforcing rules against littering?
   • Does litter accumulate further away from rubbish bins?
   • What values underlie the littering behaviour?
   • How can the littering be prevented?

5. Extension
   • Compare results with the Clean Up Australia Day Rubbish Report available from the Clean Up website www.cleanup.org.au.

Campaign:
From littering to resource recovery

1. Have students complete the Worksheet: How do people litter? Remind them of the values underlying the behaviour of the litterbug.

2. Ask students to develop a campaign to convince their litterbug to refuse, reduce, reuse and recycle. The aim is to encourage the litterbug to reconsider their personal values. The campaign can include any of the following activities:
   Posters, logos or slogans, radio jingles, drawings, advertisements, letters.

3. Have students decide upon the key message of the campaign and a type of litter.

Container deposit scheme

1. Discuss the pros and cons of a container deposit scheme. Ask students if they would pick up littered beverage containers for money. If in South Australia, ask students to raise their hands if they have done this before.

2. Ask students to put themselves in the ‘shoes’ of the litterbug. Would the scheme be enough to stop them littering? Conduct a class discussion on personal responsibility and littering.
The Litterbug

Getting creative with waste

1. Discuss the following scenario with students.
   A family moves out down the street. Because they are going to buy new furniture and appliances for their new house, they leave their old belongings in the street. They think that someone might want their items, and in any case, do not want to have to hire a truck and pay to take the furniture to the tip.

   The next day it rains: the couch gets soaked and the electrical appliances are ruined. A local cat scratches the varnish off the legs of the dining table. Someone collects the pot plants and the box of magazines.

   A week after the family have moved, the local council comes and takes the remaining items to the tip.

2. Ask students the following questions:
   - Is this an example of littering?
   - What are some of the possible impacts of this behaviour on the environment and on human safety and amenity?
   - What alternative actions could the family have taken?
   - How often do they see this happening in their own neighbourhoods?
   - What are some possible uses for unwanted items dumped in the street? For example, newspapers can be used for composting, items can be used in contemporary art and decorating.

3. Have students complete Clean Up Australia’s Resourceful Rubbish activity that involves turning rubbish into a resource.

Extension / Home-Based Activities

Invite an adult who has been involved in Clean Up Australia Day to speak to the students. Have students prepare a set of interview questions prior to the visit.

- How long have they been involved in Clean Up Australia Day?
- Why do they take part?
- What are the most common types of litter?
- Have they seen attitudes to littering and resource recovery change over the years?
- Have they seen improvements in the environment?
- What do they think will happen in the future?
- What is the best piece of advice they have for school students concerned about the environment?
Worksheet: How do people litter?

There are many types of litterbugs in the world. A study was completed by the Beverage Industry Environment Council, which gave names to these litterbugs. Read about some of them below.

- **Foul Shooting Litterbug**
  Litter is thrown at a bin, it misses the bin and the person walks away.

- **Clean Sweeping Litterbug**
  On arriving at a table where others have littered, waste is swept onto the ground.

- **Flagrant Flinging Litterbug**
  Litter is flung through the air or dropped without any apparent concern.

- **90%ing Litterbug**
  Most of the rubbish is put into the bin, but some is left behind, or smaller items are dropped.

- **Wedging Litterbug**
  Pieces of litter are stuffed into gaps between seats and other places.

- **Grinding Litterbug**
  Smokers who grind their cigarettes into the ground.

- **Inching Litterbug**
  Litter is left and the person slowly moves away from it.

- **Undertaking Litterbug**
  Litter is buried, often under sand at the beach.

Choose one of the litterbugs described above and draw a picture or cartoon on how they litter.

Name of my litterbug

[Blank space for drawing]