

This resource kit has been designed to show you, the Science Teacher, the resources available in or from Waitakere City Council.

## **ACHIEVEMENT OBJECTIVES**

Levels 4,5 & NCEA

## **EXPERIMENTS**

## **RESEARCH PROJECTS**

# **WASTE MANAGEMENT**

## **NCEA**

Relevant assessments identified

## **PAMPHLETS**

Waitakere City Council literature

## **RESOURCES AVAILABLE**

Waitakere City Council literature

## **RESOURCES**

The Waitakere City Council has made available all the public brochures from its various libraries and subsidiaries. These have been read, checked, visited, analysed, and categorised, and additional information sought about statements made or facts alluded to in them. Samples of the relevant documents are included in these Resource Kits. The knowledge of many staff in the council has contributed to the kits as well. WEB SITE: <http://www.waitakere.govt.nz/>

# WASTE MANAGEMENT

## ACHIEVEMENT OBJECTIVES:

- Level 4: Investigate and classify materials on the basis of easily observable features.  
Use simple methods to identify plastics  
Investigate the extent of waste products in our city.
- Level 5: Investigate and describe the physical and chemical properties of metals  
Investigate and understand recyclable and non recyclable plastics.
- NCEA: Research with direction, how technology is used to solve waste management problems  
Investigate how scientific principles and technology are related.  
Describe the effect of pollution caused by waste dumped in the wrong place

## PRACTICAL WORK:

Physical properties of metals (wrt recycling)  
Properties of different plastics.  
Polymers.  
What can be done to plastics for recycling.  
Natural materials for home insulation.  
Changes in soil textures after addition of compost.  
Inside a compost heap.  
The life cycle of worms.  
Analysing the waste in a school community.  
Practical ideas and trials for recycling in the school community.  
Investigation of the scientific principles of the green waste composter at the Baling Station.  
Show the biological ideas involved when humans use microbes in waster disposal  
Analysing the littering in local waterways.

## RESEARCH PROJECTS:

Recycling of metals.  
Recycling of plastics.  
Discovering the economics of recycling plastics.  
Commercial composting.  
Litter problems in local shopping areas.  
Efforts used by councils to encourage thoughtful waste disposal.  
An analysis of the household waste now that Waitakere has been an eco city for more than two years.  
Waste management techniques and principals

# PAMPHLETS INCLUDED IN THIS PACKAGE

## WASTE MANAGEMENT

The Green Retail Guide	ideas for recycling/reuse of packaging
Ways to Save the Planet	some starters for recycling
The Better Business Guide	life cycle of a product – could encourage a different approach to looking at recycling
Wise Resource Use	newsletter about how council is working with industry to reuse and recycle
Cleaner Productions factsheets	case studies about industries that are working with the council to reduce waste – includes Norcross, Phoenix Natural Foods, Carter Holt Harvey. Some interesting facts Cleaner Productions posters on <i>Why Recycle</i>

Most resources for Waste Management are available from the ARC,  
e.g. the very extensive *Resource Pack on Recycling*.