













Life Skills







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Introduction

Section A Introduction

Foreword

Petco Producer Responsibility Organisation NPC is a Producer Responsibility Organisation (PRO), incorporated in 2004, that administers Extended Producer Responsibility (EPR) schemes on behalf of its members for various identified products in the packaging sector. Petco serves as a national organisation responsible for driving recycling activities, unlocking the collection and recycling value chain, guiding product design, stimulating end-use markets for recycled material, carrying out education and awareness initiatives and building the required local recycling infrastructure and capacity.

Petco is a collective organisation, set up by our producer members to fulfil their extended producer responsibility obligations, by taking accountability for their products throughout its entire life cycle, as mandated by Section 18 of the National Environmental Management: Waste Act. Petco is committed to driving change towards a circular economy in South Africa's packaging industry.

Petco has created this user-friendly, fun, and factual Educators' Workbook to help teach learners how their actions can have a less harmful impact on the environment. They will learn that littering is a bad habit, as well as the different things that can be done with waste. By completing the activities together with your learners, you will teach them lessons that they will remember for life. The activities, which are aligned to the CAPS curriculum, cover the curriculum standards of various learning areas, and have been designed to ensure that learners have fun while learning.

You can assist your learners by encouraging them not to litter, and to:

- · reduce waste;
- reuse materials;
- · collect materials that can be recycled;
- · take responsibility for their environment and to mobilise others to do the same.

The primary learning areas covered in this guide are:

Grade 4: Life Skills Term 4 (Health and environmental responsibility); English Term 1 (Reading and Viewing). **Grade 5:** Natural Sciences and Technology Term 2 (Matter and Materials; Processing); English First Additional Language Term 3 (Reading and Viewing); Life Skills Term 3 (Health and environmental responsibility).

Grade 6: Mathematics (Data Handling); English (Writing and Presenting).

Many of the activities in this guide are based on the poster ('People in the life of a recycled plastic bottle'):

- 1. Consumers
- 2. Collectors
- 3. Recyclers
- 4. Convertors
- 5. Bottlers/Fillers
- 6. Brand Owners
- 7. Retailers

While some activities relate to the poster as a whole, others focus on one or two of the people and/or related processes (e.g. 'recycling'). Ensure that your learners have a full overview of the cycle before doing the individual activities. It may also be helpful for you to read the whole Teacher Guide, in preparation, as different processes are explained in detail in various sections of the guide. A vocabulary table is provided in the Resource Section which defines words that are frequently used in this guide. You may wish to make a copy of the table for your learners.

The poster and activities are aimed at teaching learners the 4R's that will help them to make wiser choices about managing the amount of waste that they create and to become aware of the need to protect their local environments, as well as planet Earth as a whole.





Section A Introduction

The 4R's are:

Refuse: Say "no" to items you don't need, including single-use items where possible and ask yourself twice if you really need them. Try to avoid using items like plastic knives and forks or drink stirrers.

Reduce: Think about what is needed and what is not. Whenever possible, we can make choices to reduce the things we use. For example, you can pack your school lunch in a reusable lunch box.

Reuse: Reusing comes before recycling. This means that, if we can, we should try to reuse things before we throw them away or recycle them. For example, you can reuse a plastic peanut butter jar to store rice or dried fruit

Recycle: Recycling means to use packaging and other products to remake new goods that can be sold and used again. Choose packaging that can be recycled. Start a waste collection system in your home or school and recycle as much as possible.

Summaru: What can and cannot be recucled uet

	What can be recycled	What can't be recycled
Glass	Cold drink, juice, and water bottlesBeer, wine and liquor bottlesFood and sauce containersClear drinking glasses	Windscreens, window glassNon-clear drinking glassesMirrorsLight bulbs
Plastic	 Cold drink, juice, and water bottles Shampoo bottles Soap/dishwashing liquid bottles Plastic jars Milk bottles Sauce bottles Plastic furniture Buckets Plastic shopping bags and bread bags Bottle caps 	Any plastic that does not have a polymer identification code on it. A polymer identification code looks like this, with a number from 1-7 inside it:* PET bottles that have the ink label printed directly onto the plastic PET bottles with a metal cap and closure Brightly coloured, neon, opaque or metallic PET bottles
Metal	 Aerosol cans Cold drink and juice cans Bottle caps Tinfoil trays Food cans Metal containers, tinfoil 	 Paint cans, motor oil cans Batteries CDs Anything that contains mercury or lead
Paper	 Magazines, newspapers, books Office and shredded paper Envelopes Cardboard boxes of any kind Paper cartons for food and drink 	 Used paper plates Disposable nappies, tissues, and toilet paper Used cement bags Used dog food bags Laminated paper

NB - PLEASE NOTE:

- *1. The number (in the symbol) does not mean that it can be recycled X number of times or that it has been recycled X number of times.
- 2. Remember to always check in your area (with the municipality, local collection service or local collector) to see what can and can't be recycled.
- 3. Due to the implementation of mandatory EPR, many Producers are in the process of making plans to ensure that their packaging will get recycled. This means that many of the items mentioned in this workbook at the time of writing in 2021, as "what can't be recycled", will be able to be recycled in the near future. We ask you to please keep up to date with these changes and check the below resources so that you can amend the contents of this book as necessary for your learners.

Sources:

https://theglassrecyclingcompany.co.za/how-to-recycle/

https://recyclepaper.co.za/about-paper-recycling/what-to-recycle/

https://www.plasticsinfo.co.za/wp-content/uploads/2019/10/All-About-Plastics-May2018.pdf

http://www.metpacsa.org.za,





Section A Introduction

Background and Context

Pick n Pay School Club is celebrating its 19th year of providing much-needed educational material, which now reaches 111,300 teachers and 2.38 million learners across South Africa. The Petco learning programme is aligned to the CAPS curriculum, which adheres to the standards set by the Department of Education.

The material is designed to facilitate the learning process and culminates in the assessment of competency levels according to the standards set for each specific grade. The educator is supported by way of research and learning content that is presented clearly and is easy to implement in the classroom.

Acronyms:

CAPS: Curriculum and Assessment Policy Statement **GET:** General Education and Training





Name of Lessons: Be a planet protector!	Time: 3 x 30 minutes		
	Subject: Life Skills Term 4 (Health and environmental responsibility); English Term 1 (Reading and Viewing)		

Curriculum Standards (CAPS):

Life Skills Term 4: Topic 3 Health and environmental responsibility

- · Healthy environment and personal health: home, school and community
- o Examples of environments that are unhealthy: pollution (air, water and land) including illegal dumping sites
- o Dangers of unhealthy environments to personal health
- o Strategies to keep environments healthy: conservation of environment

English First Additional Language Term 1: Reading and Viewing

- Does comprehension activity on the text (oral or written)
- o Discusses new vocabulary from the read text
- o Spells ten words from read text
- o Revise alphabetical order

Additional opportunities for extension and CAPS-alignment:

Term 4: Social Sciences (Geography): Pollution and wastewater

Term 2: Natural Sciences: Topic - Solid Materials (Raw and manufactured materials)

Objectives

The learners will be able to:

- · Identify the people who are involved in the recycling of a plastic bottle and define their roles.
- · Determine the reasons for recycling plastic.
- · Understand which types of plastic can and cannot be recycled.

Content	Skills	Values
Learner Activity 1: I am a Planet	Learner Activity 1: I am a Planet	Learners appreciate the importance of
Protector!	Protector!	caring for the environment and that they
· Waste	· Comprehension	are responsible for keeping it clean.
· Litter		
Recycling		
· Life cycle of a plastic bottle		
Learner Activity 2: My planet; My home	Learner Activity 2: My planet; My home	
Environmental responsibility	· Retention and sequencing	
· Life cycle of a plastic bottle	· Alphabetical order	
Learner Activity 3: Jabu the Collector	Learner Activity 3: Jabu the Collector	
Reusing	· Categorisation	
· Recycling		

Resources needed

Pencils/crayons; scissors (learners must be supervised when using scissors); glue; the Petco poster; photocopies of the Learner Activities; photograph of rubbish dump from Annexure; photograph of landfill from Annexure; a clear beverage bottle with the PET '1' symbol on it; if possible, let learners bring a variety of plastic bottles to school prior to the lessons.

Teacher preparation before starting

Study the lesson plans prior to the lessons and ensure you have all the resources required for the lessons. Familiarise yourself with content for the three lessons before the lessons start. Print sufficient Learner Activity worksheets.





Learner Activity 1: I am a Planet Protector!

Show learners an empty plastic bottle and/or the bottles that they have brought to class.

Ask:

· What do we do with plastic bottles when we have finished using them?

Explain:

- · Waste refers to all the things that we throw away after we have used them. If we leave our waste in an open place, then it becomes litter.
- · It is bad to leave litter lying around on the ground. The correct thing to do with waste is to put it in a waste bin.
- · Waste and litter are bad for the environment.

Ask:

· What do you think happens to a plastic bottle once you have thrown it away?

Explain:

- · All the things that we throw away land up in a rubbish dump or have to be taken away and buried in a landfill.
- Explain the term 'rubbish dump', using the definition provided as a guide. Show learners the picture of the rubbish dump (in the Annexure to this guide).
- Explain the word 'landfill', using the definition provided as a guide. Show learners a picture of the landfill (in the Annexure to this guide).
- The more things that we throw away, the more space is needed to bury all the waste and we are quickly running out of space.

 This is bad because we will soon have nowhere to put all the things that we throw away. But there is another option (choice)!

 Just because we have finished using something, does not mean that it must now get thrown away.
- Many of the things that we use every day can be reused or recycled.

Show:

- · Show learners the PET '1' symbol at the bottom of the plastic bottle.
- · Let learners look for the symbol on the plastic bottles that they have brought to class.
- Bottles or containers with other numbers besides a '1', are not made from PET. The different numbers on the bottles and containers tell us what type of plastic has been used to make them.
- See the Introduction to this guide for a rough guide on what can and cannot be recycled. Remember to always check in your area (with the municipality, local collection service or local collector) to see what can and can't be recycled.

NB: The number (in the symbol) does not mean that it can be recycled X number of times or that it has been recycled X number of times.

Explain:

- When a plastic bottle has the PET '1' symbol on it, it means that it can probably be recycled. This also depends on the colour
 of the bottle, and things like the design of the lid and label. (Learners will read more about this in Learner Activity 3).
- · PET is a type of plastic used for containers, bottles and for other items.
- When we recycle our waste, we find new ways to use it so that it can be made into something else and it does not have to end up in a rubbish dump or landfill.
- PET bottles can be recycled into many new and useful things. Most importantly, they can be recycled and used to make brand new PET containers and bottles.
- · When we make an effort to recycle, we are looking after our environment.
- · People who look after their environment are planet protectors!

Refer:

· Refer the learners to the Petco poster.

Explain:

- When you have finished using a plastic bottle, that can be recycled, it goes through a few stages on its way to becoming a brand new bottle.
- · The poster shows the seven different groups of people involved in the life of a recycled plastic bottle.

Read and discuss:

- \cdot Let seven different learners each read one of the roles.
- · Discuss each of the roles.
- · Answer questions that learners may have.

Complete the Learner Activity:

- · Hand out the Learner Activity 1 worksheets.
- · Learners write the name of each of the people in the life of a recycled plastic bottle in the drawing provided.
- Learners draw a picture of themselves as a Planet Protector in the middle of the drawing.
- · Learners use the clues to write the names of the people.





Answers to Learner Activity:

Question 4:

a) Recycler b) Retailer c) Bottler/Filler d) Consumer

e) Brand Owner f) Converter g) Collector

Learner Activity 2: My planet; My home

Explain:

· We are going to play a memory game! Let's see who has the best memory.

Refer:

- \cdot Refer the learners to the Petco poster.
- · Let learners look at the poster for 30 seconds.
- Put the poster away (where the learners cannot see it).

Complete part 1 of the Learner Activity:

- Hand out the Learner Activity 2 worksheets.
- · Learners cut out the pictures and stick them in the correct sequence on their 'My Planet; My Home' picture.

Ask:

· Why is it important to recycle or to reuse things?

Refer:

· Refer the learners to part 2 of the Learner Activity (Question 5).

Read:

- Read through the four reasons that it is important to recycle or reuse PET plastic bottles.
- Point out the four highlighted words (recycled, reusable, rewarding, responsible).

Complete part 2 of the Learner Activity:

- Learners unjumble the four words.
- Learners write the four words in alphabetical order (they all start with the letters 're', so learners have to use the third letter in each word to complete this question).

Answers to Learner Activity:

Question 7:

RECYCLED; RESPONSIBLE; REUSABLE; REWARDING

Learner Activity 3: Jabu the Collector

Explain:

- · Very often, when we buy something, it is wrapped in plastic. This wrapping is called packaging.
- · Packaging is the name given to the material used to enclose, protect, transport, and even promote things that are for sale.
- Most packaging that is made of paper, plastic, metal, or glass can be recycled e.g., a mug would be packaged in a box to be delivered.

Ask:

· Do you remember what the word 'recycle' means?

Explain:

- Explain the word recycle, using the definition provided as a guide.
- · When waste that can be recycled is collected, it must be put into a separate bag from the other waste e.g. food.
- Explain the word material, using the definition provided as a guide.

Ask:

- What material are the following items (things) made from? Are they made from plastic, metal, glass, or paper? (Some may be made from more than one e.g. 'jars' may be plastic or glass.)
 - o Wine bottles; cold drink cans; magazines; water bottles; pizza boxes; jars; food tins; shopping bags.

Explain:

- The different materials that can be recycled need to be separated before they get to the recycler because we do different things with them when they get recycled.
- Some things that we use cannot be reused or recycled, at the moment, and must be thrown away or composted. (Compost is food waste and rotting plants that are used as food for growing new plants and food.)

These include:

o food;

- o tissues, toilet paper and nappies cannot be reused or recycled;
- o cigarette butts cannot be recycled;
- o clothes cannot be recycled;
- o chip packets, sweet wrappers or chocolate wrappers cannot be recycled.
- PET plastic bottles that are brightly coloured, or that you can't see through, do not get collected for recycling because it is hard to make new things with them.





Complete the Learner Activity:

- · Hand out the Learner Activity 3 worksheets.
- · Learners will read about Jabu who is a collector.
- He is a planet protector because he works to make sure that all the things that can be recycled make their way to a buy-back centre and then to a recycler.
- · Explain the word buy-back centre using the definition provided as a guide.
- Ensure that learners understand the important role that Jabu plays. Jabu either:
 - o sorts through household waste for the people who don't separate their waste from their recyclables; or
- o if people have separated their recyclables, he will sort them to sell the valuable materials to the buy-back centre.

 Learners must spot the incorrect word/s in each sentence, cross it out and write the correct word/s in the space provided.
- Learners must find the words in the wordsearch puzzle.

Answers to Learner Activity:

Question 2:

- a) hundreds thousands
- b) landfill buy-back centre
- c) cannot can
- d) '2' '1'
- e) take off leave on

Question 3:

C	0		L	Е	С	Т	0	R	В	Х	
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Extension:

- Let learners use each of the words in a story called 'I am a Planet Protector' to assess whether they understand the
 importance of recycling plastic (and other materials that can be recycled).
- In groups of 7, let learners create a play in which each learner is a different person in the life of a plastic bottle. (Some learners can play more than one role if groups of 7 are not possible.)

Assessment

Refer to the Resource Section for the Assessment Rubric.

Teacher reflection

Is there anything you would do differently if you taught this unit again?

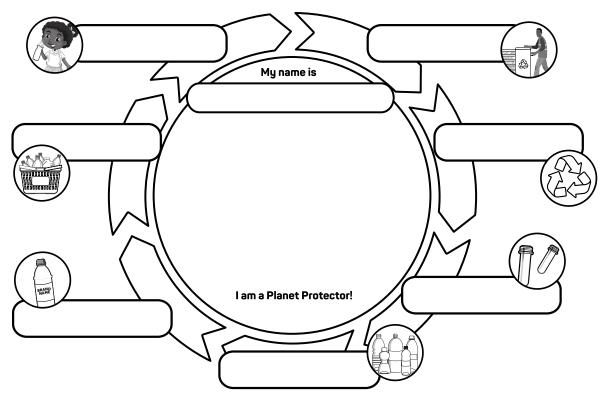




I am a Planet Protector!

Name: [Date:
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- 1. Look at the Petco poster.
- 2. Use the poster to complete the drawing below. Write the name of each of the people in the life of a recycled plastic bottle.
- 3. Draw a picture of yourself as a Planet Protector in the middle of the drawing.



- 4. People who recycle are also Planet Protectors! Use the poster to complete each sentence.
 - a) I buy bottles from the buy-back centre and sort them, wash them and turn them into fibre or pellets. I am a _______.
 - b) I place PET plastic bottles on the shelves of my shop for consumers to buy. I am a ______.
 - c) I fill PET plastic bottles with water, shampoo or dishwashing liquid. I am a
 - d) I buy PET plastic bottles filled with water, shampoo or dishwashing liquid and I place the empty bottle in a recycle bin. I am a ______.
 - e) I make and sell PET bottles which are filled with liquids like water, cold drinks or shampoo under my brand label. I am a _______.
 - f) I use recycled and new PET pellets to make new plastic bottles. I am a ______.
 - g) I gather empty PET plastic bottles and sell them at a buy-back centre. I am a





_earner Activity 1

My planet; My home

Name [.]	Date:
INGITIC	

- 1. Look at this 'My planet; My home' picture.
- 2. Colour in the picture of the Earth in the centre of the picture.

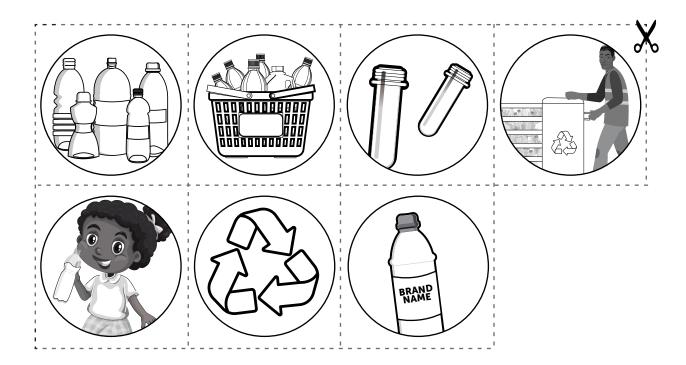
Learner Activity 2

My planet; My home





- 3. Look at the Petco poster for 30 seconds and try to memorise the order of the people in the life of a recycled plastic bottle.
- 4. Cut out the pictures below and stick them in the correct sequence on your 'My Planet; My Home' picture.



- 5. Read the following:
 - There are four important reasons to recycle or reuse PET plastic bottles:
 - a) PET plastic bottles can be **recycled** again and again and can be made into many new and useful products even brand new PET products. Products are all the items (things) that are sold at shops, including clothes, food and books.
 - b) PET plastic bottles are reusable.
 - c) Collecting PET plastic bottles creates **rewarding** income opportunities for collectors.
 - d) Collecting and recycling PET bottles is good for the environment, and is a **responsible** way to live.
- 6. Each of the four reasons, for recycling PET plastic bottles, contains a word that begins with 're'.



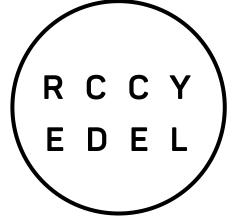


Learner Activity 2

7.

Section B Intermediate Phase Grade 4

Unscramble the letters in these 4 bubbles and write the word in the space below each bubble.









Now, write the four words in alphabetical order.





Jahu the Collector

Name: [Date:
---------	-------

1. Read about Jabu the Collector and then answer the questions that follow:

Jabu is a collector. He knows the value of collecting used plastic PET bottles. Jabu is one of thousands of collectors in South Africa who help to make sure that plastic bottles don't end up in a landfill or a rubbish dump. He gathers recyclable materials like empty plastic bottles from homes, schools, offices, and other places, and sells them at a buy-back centre. You can make Jabu's work easier for him if you separate things that can be recycled into a different bin. Many people have bins for plastic, glass, metal and paper at their homes, offices, or schools. Try to sort out your waste, rather than dumping it all into one dustbin.



Jabu collects all the PET plastic bottles that he can find, because he knows that most of them can be recycled. Jabu will also collect plastic containers if he finds them as some of these can be recycled too.

Jabu also knows which plastic bottles are the easiest to sell. He tries to collect as many PET bottles as he can that are clear, light blue, brown or green because these bottles can be sold at the buy-back centre. Jabu gets the most money for clear or light blue bottles as these can be made into many new things. He gets less money for green and brown bottles as they can only be made into certain things. Plastic bottles that are dark, brightly coloured, metallic or neon cannot be recycled.



If the bottle has a little triangle with a 1 in it close to the bottom of the bottle, then he knows that the bottle is a PET plastic bottle, and he can sell this bottle at a buy-back centre. Bottles or containers without the symbol, or bottles with other numbers besides a '1', are not made from PET. The different numbers on the bottles and containers tell us what type of plastic has been used to make them.

Most of the PET bottles that Jabu finds have labels on them. These can be left on the bottles when they are placed into the recycling bin. If he finds PET bottles that have shrink-sleeve labels on, Jabu still collects these bottles, takes the shrink-sleeves off, and places the sleeves in the waste bin.





Learner Activity 3

Section B Intermediate Phase Grade 4

You can do this too before placing your bottles into the recycling bin to make Jabu's life easier. You can also make Jabu's life easier by making sure that you keep the inside of the bottles empty by not putting things like chip packets inside them.

He keeps the lids on the bottles as he can also sell these. You can help Jabu by squashing the bottle and leaving the lid on!

- 2. Each of these sentences has one wrong word in it. Use the information you have read about Jabu to spot the wrong word. Cross out the wrong word and write the correct word or words in the space provided.
 - a) There are hundreds of collectors in South Africa.
 - b) Jabu sells the plastic he collects at a landfill.
 - c) Clear bottles cannot be recycled.
 - d) A bottle that shows a triangle with a '2' in it is a PET bottle._____
 - e) You must take off the lids of bottles to help Jabu._____
- Look at the wordsearch puzzle below and then find the following words in the puzzle. The first word has been done for you.

Jabu Clear		_andfill _abel		Plastic One		Recycl Gather		Colle PET	ctor		mp yback
С	0	L	٦	E	С	Т	0	R	В	Х	0
w		Α	В	c	Y	Z	U	Ш	С	J	N
Q	С	N	V	N	J	٧	Υ	С	R	G	E
Р	X	D	U	М	Р	S	F	Y	۲	Α	V
E	J	F	В	C	Y	В	Α	C	К	Т	x
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Z	Р	L	Α	S	Т	I	С	Р	U	R	w





Resource Section

Section C Resource Section

Assessment Rubric:

Assessment					
Rating code	Description of competence				
7	Outstanding achievement				
6	Meritorious achievement				
5	Substantial achievement				
4	Adequate achievement				
3	Moderate achievement				
2	Elementary achievement				
1	Not achieved				

Vocabulary:

Waste:	Unwanted things that are thrown away after we have used them.
Litter:	Waste such as paper, cans, and plastic left lying in an open place.
Environment:	The environment is the world that we live in. The environment includes
	everything living and everything non-living. Living things (people, animals,
	plants) need the non-living parts of the environment (water, air, sun) to survive.
Reduce:	To make smaller or use less of. To cut back on what we buy and the waste we
	make.
Reuse:	To find many new ways to use waste, so that we don't throw it away.
Recycle:	To use waste to remake new goods that can be sold and used again.
Rubbish dump:	A rubbish dump is a place where waste is left in one place on top of the
	ground.
Landfill:	A landfill is a place where waste is taken to be buried in a big hole in the
	ground.
Compost:	Food waste and rotting plants that are used as food for growing new plants
	and food.
Material:	What something is made from.
Community:	A community is a place where people live, work and play.
Collector:	A collector collects recyclable materials from homes and public areas. The
	collector sorts and separates the material into piles of metal, glass, plastic,
	and paper.
Buy-back centres:	Collectors take recyclable materials to a buy-back centre and get paid for
	what they have collected. The buy-back centre sells the materials to a
	recycling plant. Buy-back centres are also called depots or drop-off sites.
Recycling plant:	A company that buys the recyclable materials from the buy-back centre.
	Then they make new and useful things from the materials.
Packaging:	The material used to enclose, protect, transport, and even promote things that
	are for sale. Packaging is usually made from paper or plastic e.g. a mug would
	be packaged in a box to be delivered.
Container:	A bowl or tub that holds the product, such as a food container, or a bin used to
	store waste. Containers are a type of packaging.





Section C Resource Section

Photograph of rubbish dump



Source: Petco

Photograph of landfill



Source: Petco







Notes





For more information email schoolclub@pnp.co.za