

Educator Workbook

CAPS-aligned

Grade 1–3

Educating future
leaders by teaching
them to care for the
environment.

Life Skills



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Section A

Introduction

Foreword

PETCO is the trading name of the PET Recycling Company NPC South Africa, a not-for-profit company incorporated in 2004. PETCO fulfils the PET industry's role of Extended Producer Responsibility (EPR), being a voluntary industry driven and financed environmental solution for post-consumer PET plastic and the vehicle through which the PET industry self-regulates and co-ordinates its recycling activities. To achieve this, everyone involved, from Government to the raw material producers, converters, brand owners, retailers, consumers, and recyclers, play their part in the solution. By imposing accountability over the entire life cycle of PET products and packaging, companies that manufacture, import and/or sell PET products and packaging are financially and physically responsible for such products after their useful life.

PETCO is not involved in the physical collection or recycling of waste PET in South Africa, choosing to remain outside of the PET recycling value chain. Instead, it acts as a Producer Responsibility Organisation (PRO) that financially supports, on behalf of its members, activities along the waste PET value chain. This model presents the lowest risk to all stakeholders, negates the need for PET EPR funding becoming a drain on the national fiscus, and is the most cost-efficient solution for society. PETCO members include brand owners, resin producers, converters, and bottlers. Visit www.petco.co.za for more information.

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 Life Skills curriculum standards 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; and
- collect materials that can be recycled.

Here is a quick overview of the CAPS-aligned content that you will find in this educational pack:

Grade 1

Life Skills – My community

Grade 2

Life Skills – People who help us

Grade 3

Life Skills – Recycling

Introduction

Background and Context

Pick n Pay School Club is celebrating its 18th year of providing much-needed educational material, which now reaches 110,425 teachers and 2.36 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.

Introduction

Acronyms:

CAPS: Curriculum and Assessment Policy Statement

GET: General Education and Training

Section B

Foundation Phase

Grade 3

Name of Lessons: I know the 3 R's		Time: 3 x 30 minutes
Grade 3		Subject: Life Skills Term 2 (Recycling)
Curriculum Standards (CAPS): Life Skills Term 2: Beginning knowledge and personal and social well-being Topic: Recycling <ul style="list-style-type: none"> • What happens to our waste? • Reducing (using less). • Reusing (things that can be used again). • Recycling (used things that can be made into something new). • What cannot be recycled. • Recycling at home and at school. 		
Additional opportunities for extension and CAPS-alignment: Term 3: Pollution. Term 3: Products and Processes - plants & the earth.		
Objectives		
The learners will be able to: <ul style="list-style-type: none"> • Differentiate between, and understand the meaning of reducing, reusing, and recycling. • Sort items that can be recycled, reused, and be discarded. • Demonstrate their understanding of recycling. 		
Content	Skills	Values
Learner Activity 1: Reduce, Reuse, Recycle <ul style="list-style-type: none"> • Waste handling – reduce, reuse, recycle Learner Activity 2: Reuse, recycle or throw away? <ul style="list-style-type: none"> • Recycle vs. reuse or discard Learner Activity 3: Recycling pays! <ul style="list-style-type: none"> • The recycling process 	Learner Activity 1: Reduce, Reuse, Recycle <ul style="list-style-type: none"> • Complex problem solving • Critical thinking • Active listening • Subtraction • Reading for meaning • Spelling Learner Activity 2: Reuse, recycle or throw away? <ul style="list-style-type: none"> • Sorting • Critical thinking Learner Activity 3: Recycling pays! <ul style="list-style-type: none"> • Creativity • Comprehension • Rhyming 	Learners appreciate the importance of caring for the environment and that they are responsible for keeping it clean.
Resources needed		
Learner Activity 1: Reduce, Reuse, Recycle Pencils/crayons; photograph of rubbish dump from Annexure; photograph of landfill from Annexure; the PETCO poster; photocopies of the Learner Activity.		
Learner Activity 2: Reuse, recycle or throw away? Scissors (learners must be supervised when using scissors); glue; the PETCO poster; photocopies of the Learner Activity.		
Learner Activity 3: Recycling pays! Pencils/crayons; the PETCO poster; photocopies of the Learner Activity.		

Section B

Foundation Phase

Grade 3

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 lesson starts. Print sufficient Learner Activity worksheets.

Teaching the Learner Activities

Learner Activity 1: Reduce, Reuse, Recycle

Vocabulary:

Environment:	The environment is the world that we live in. The environment includes everything living and everything non-living. People, animals, plants, and all other living things rely on the non-living parts of the environment to survive.
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.
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 used and sold again.

In this activity, learners do simple maths sums and word games which demonstrate the meaning of the 3 words: reduce, reuse, and recycle.

- Draw three columns on the board.

Explain:

- Waste and litter are bad for the environment.
- Explain the word 'environment', using the definition provided as a guide.
- All the things that we throw away must go somewhere. They have to be taken away to a rubbish dump or 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 for all the waste.
- To keep as many things out of the rubbish dump or landfill as possible, it's important for each of us to do our part.
- One of the ways to help is through the 3 R's of managing waste.
- The first R stands for reduce.
- Write the word REDUCE in the first column on the board.
- Explain the word 'reduce', using the definition provided as a guide.

Ask:

- Can you think of ways to reduce the amount of waste that has to be buried in a landfill or rubbish dump?
- Write learners' suggestions on the board under the column REDUCE.

Explain:

- The second R stands for reuse.
- Write the word REUSE in the second column on the board.
- Explain the word reuse, using the definition provided as a guide.

Ask:

- Can you think of examples of things that we can reuse, instead of throwing them away?
- Write learners' suggestions on the board under the column REUSE.

Explain:

- The third R stands for recycle.
- Write the word RECYCLE in the third column on the board.
- Explain the word recycle, using the definition provided as a guide.

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Ask:

- What are some kinds of recyclable materials? (Metal, plastic, glass, and paper).
- Can you think of examples of things that can be recycled?

Complete the Learner Activity:

- Hand out the Learner Activity 1 worksheets.
- Learners complete three subtraction sums by drawing the correct number of bottles to make each sum correct (Subtraction = take-away = reduce).
- Learners reuse highlighted words in sentences to create new sentences with the highlighted word.
- Learners recycle letters of words to make new words.

Answers to Learner Activity:

- **Question 2:** 4 bottles; 5 bottles; 13 bottles.
- **Question 6:** Night; Wolf; Read.

Learner Activity 2: Reuse, recycle or throw away?

Vocabulary:

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 used and sold again.

Ask:

- Who remembers the difference between reuse and recycle?

Explain:

- Explain the word 'reuse', using the definition provided as a guide.
- Explain the word 'recycle', using the definition provided as a guide.
- Many things that are made of paper, plastic, metal, or glass can be recycled.

Ask:

- All these things can be recycled. What are these things made from? Are they made from plastic, metal, glass, or paper?
 - Wine bottles (glass); soda cans (metal); magazines (paper); water bottles (plastic); boxes (paper); jars (glass); food tins (metal); shopping bags (plastic).

Explain:

- It is very important to reduce the amount of waste that we use and throw away, because it all lands up in a rubbish dump or landfill.
- That is why it is so important to try to reuse or recycle as much waste as possible.
- Only things that cannot be reused or recycled should be thrown away into a rubbish bin.
- There are some things that we can't recycle, even though they are made from glass, metal, paper or plastic.
- Plastic bottles that are clear or light blue can be recycled into a brand-new PET plastic bottle.
- 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. (When the learners do the activity, point out that the plastic bottle at the bottom of the worksheet is brightly coloured e.g. bright purple or bright yellow).
- Just because we can't recycle these bottles, doesn't mean they should be thrown away! They can still be washed and reused.
- Plastic knives and forks are usually made of a combination of different materials which makes them hard to recycle. But they can be washed and reused.
- Glass jars can be reused (e.g. honey jar).
- Things like lightbulbs or mirrors can't be recycled with your regular glass recycling as this glass has different properties to packaging glass.

- Even though fast-food containers are made of paper, we can't recycle them if they have got food left in them or if the box is greasy. We cannot reuse the box either, so we have to throw it away.
- If the fast-food box is clean and there is no food on it, then it can be recycled.

Complete the Learner Activity:

- Hand out the Learner Activity 2 worksheets.
- Learners look at a table of 15 drawings.
- Each drawing is of a thing that can either be:
 - o recycled
 - o not recycled, but can be reused
 - o cannot be reused or recycled and must be thrown away.
- Learners cut out the 15 drawings.
- Learners glue each drawing on a new table, under the correct column:
 - o Recycle
 - o Reuse
 - o Send to the landfill

Answers to Learner Activity:

- **Reuse:** jeans, plastic cutlery, cloth face mask, brightly coloured plastic bottle, used glass jar.
- **Recycle:** PET bottle, soda can, clean pizza box, cardboard box, beer bottle.
- **Landfill:** nappy, used pizza box, chicken bone, cigarette butt, fish skeleton.

Learner Activity 3: Recycling pays!

Vocabulary:

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:	A place where collectors are able to take recyclable materials that they have collected and get paid for them.
Depot:	Another word for buy-back centre.
Recycling plant	A company that buys the recyclable materials from the buy-back centre. Then they make new and useful things from the materials.

Ask:

- Who knows what a collector is?

Explain:

- Explain the word 'collector', using the definition provided as a guide.
- After the recyclable things have been separated into piles of metal, glass, plastic and paper, the collector takes them to the buy-back centre to sell them.

Ask:

- What do you think a buy-back centre is?

Explain:

- Explain the term 'buy-back centre', using the definition provided as a guide.
- The buy-back centre then sells all the recyclable materials that have been collected to a recycling plant.
- Explain the term 'recycling plant', using the definition provided as a guide.
- There are different recycling plants that deal with the different materials e.g. a PET plastic recycling plant or a glass recycling plant.
- The recycling plant can make many new and useful things from the recyclable materials.
- At a metal recycling plant, the recycling plant crushes and bundles the cans and takes them to a place where the cans are melted in a big fire and then rolled into a long thin sheet.

Section B

Foundation Phase

Grade 3

- The sheet can now be used to make new cans.
- The PET plastic recycling plant will take plastic and shred the plastic into tiny bits that can then be made into new bottles, new plastic things or even into material for clothes.
- The paper recycling plant takes paper and cardboard and soaks it and mashes it and then rolls it into a long thin sheet.
- The sheet can now be used to make new things from the paper.

Complete the Learner Activity:

- Hand out the Learner Activity 3 worksheets.
- Read the rap song. Let learners put whatever music or beat to it that they choose.

Explain:

- The word 'depot' is another word for a buy-back centre.
- Point out the rhyming words (e.g. new – you; dump – lump).
- Let learners come up with other words that rhyme with some of the words in the poems.
- Go through each verse. Ask learners questions about the information.
- Before learners write their own rap, write these sentences on the board to help them with their rap. What is the message of each sentence? Point out the rhyme.
 - Help with our plan or we could all be living in a garbage can!
 - Glass and paper, plastic, tin, go in your recycling bin!
 - Save your glass, and your tin too. Recycling is the thing to do!
 - We must start now, we can't wait. Quick or it will be too late!
- Let learners work in groups to write their own rap using the information they have learned about recycling.
- Each group presents their rap to the rest of the class.
- Some learners could sing/rap while others keep a beat or make sound effects.
- The raps can be used as a presentation for other classes, or as part of an assembly, to teach other learners about recycling.

Answers to Learner Activity:

- **2a).** electricity.
- **2b).** depot.
- **2c).** money.
- **2d).** shirt, bag, skirt.
- **2e).** shred, melt, spin.
- **2f).** We cut down less trees. The animals still have their homes.

Assessment

Refer to the Resource Section for the Assessment Rubric.

Teacher reflection

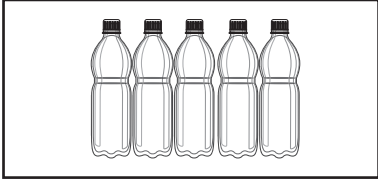
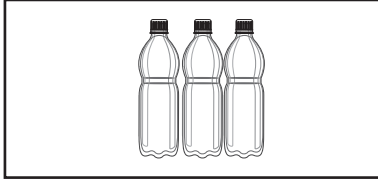
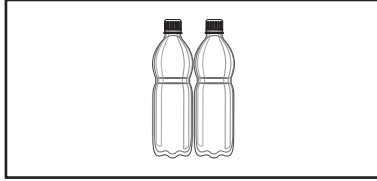
Is there anything you would do differently if you taught this unit again?

Reduce, Reuse, Recycle

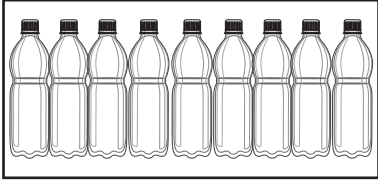
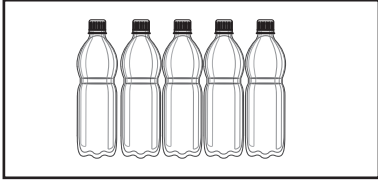

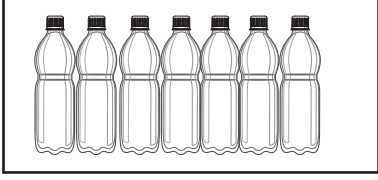

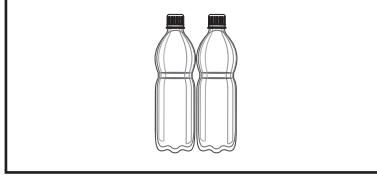



Name:..... Date:.....

I can reduce numbers

1. Look at this sum:

	-		=	
5	-	3	=	2

2. Draw the right number of bottles in the missing box to make the sum right.

	-		=	
	-		=	
	-		=	

Learner Activity 1

Section B Foundation Phase Grade 3

I can reuse words

3. Read this sentence:

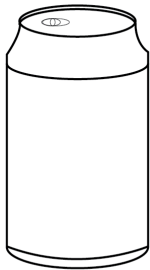
I do the **right** thing when I pick up litter.

Now read this sentence. The word **right** is reused with a different meaning:

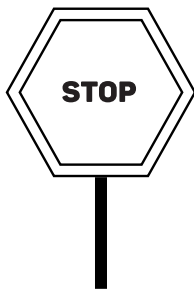
The litter bin is on the **right** of the classroom.

4. Make up a new sentence using the **bold** word in each of these sentences:

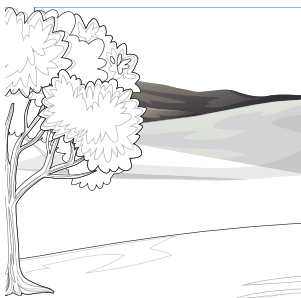
I **can** pick up my waste.



My mom must **sign** my homework.



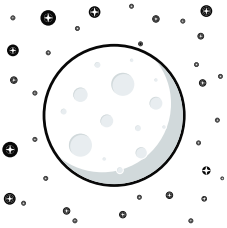
My dad can **park** his car.



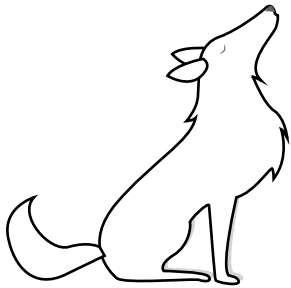
I can recycle letters

5. Look at the word **EAT**.
Can you recycle the letters to make a drink?
Yes! **TEA**
By using the same letters (E, A and T) in a different order, we can make new words, like **ATE** and **TEA**.
The word EAT has been recycled into 2 new words: ATE and TEA
6. The following words can be 'recycled' to make a new word, using all the same letters in each word. Can you think of the new word?

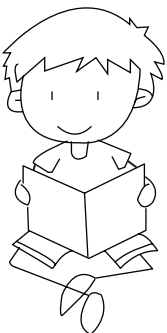
Change the word **thing** into a time of day.



Change the word **flow** into an animal.



Change the word **dear** into something you do with a book.

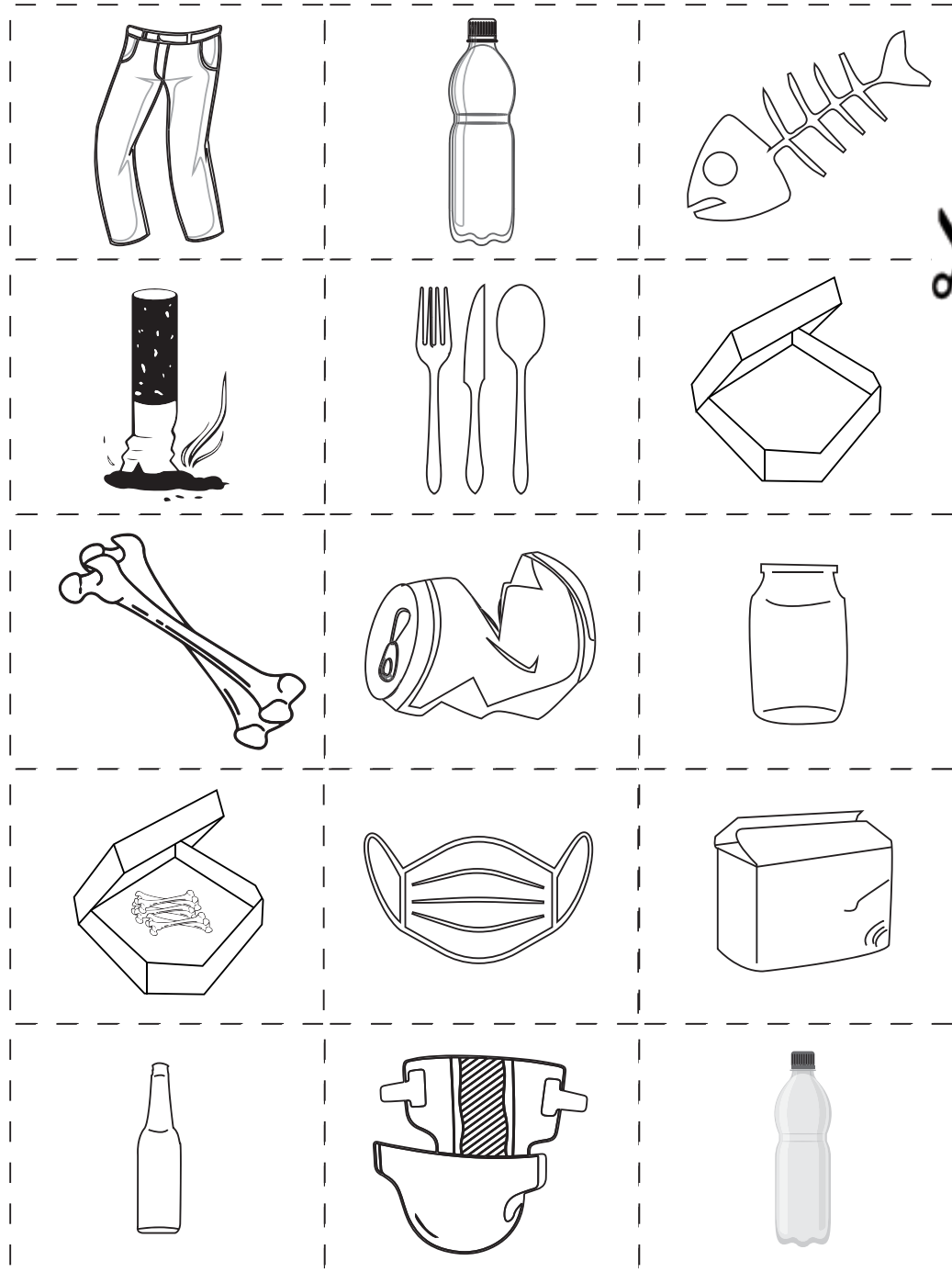


Section B Foundation Phase Grade 3

Reuse, recycle or throw away?

Name:..... Date:.....

- Look at these pictures. Some things can be recycled. Some cannot be recycled, but they can be reused. Some must be sent to the landfill.



2. Cut out all the things and glue them in the right place:

REUSE	RECYCLE	LANDFILL

Learner Activity 2



Section B

Foundation Phase

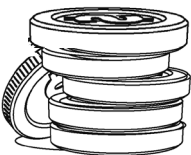
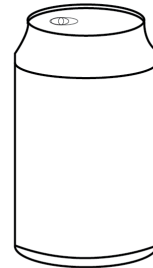
Grade 3

Recycling pays!

Name:..... Date:.....

1. Read this rap in your group, or with your teacher.

One little can all shiny and new
Used a lot of energy getting to you.
So much electricity to make a can
We can save a lot if we use the can again.



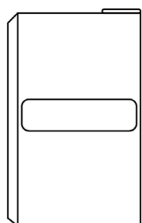
Don't throw it away to fill up the dump
Or lie along the roadside...a littering lump.
Take it to the depot*, get some money back
Get it going 'round the right recycle track.

They'll crush it and bundle it and take it to a town
Where a huge hot fire will melt it down.
Then roll it all out in a long thin sheet
To cut for new cans... that's pretty sweet.



And that plastic bottle...the one that held your drink
If it's headed for the garbage, now's the time to think.
Take it to the depot*, get some money back
Get it going 'round the right recycle track.

They can shred it, melt it, spin it into a shirt,
a bag, or even a skirt.
Reduce, reuse, recycle, don't throw it away
You can use it another day.



Now that little box....the one that held your drink
Can have a longer life when you take the time to think.
Take it to the depot*, get some money back
Get it going 'round the right recycle track.

They can soak it and mush it to separate each part
Paper, plastic and metal get a brand new start.
Paper for new boxes instead of cutting trees
Leaving homes for animals, the birds and bees.

*Depot = Buy-back centre
Adapted from: <https://www.enr.gov.nt.ca>

2. Now, answer these questions about the rap.

- a) What can we save if we reuse cans? _____
- b) What word means 'buy-back centre'? _____
- c) If you take your bottles to the buy-back centre, you can get some
_____ back.
- d) Write down 3 things that can be made from a recycled plastic bottle.

- e) Write down the three words that tell us what happens to a plastic
bottle after it arrives at the recycling plant.

- f) How, according to the rap, does recycling help the environment?

3. Now, it is your turn to write a rap about recycling PET plastic bottles.

You can use these sentences to help you:

- Recycling is easy.
- Recycling your plastic bottle saves space in the landfill or the dump.
- You can reuse your plastic bottle.
- Clear and light blue bottles can become brand-new PET plastic bottles.
- PET plastic has a little number 1 on it.
- Plastic bottles can be recycled into new things – even clothes!
- Don't forget about the collectors in your area. They are community helpers!

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

Photograph of rubbish dump



Source: PETCO

Photograph of landfill



Source: PETCO

This image shows a full page of blank handwriting practice paper. It features 20 evenly spaced horizontal blue lines across the entire page. There are no margins, text, or other markings present.

[illegible]



For more information email schoolclub@pnp.co.za