

# Educator workbook

CAPS-aligned

## Grade 6

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

Life Skills

English

Natural Sciences  
and Technology



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# 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.

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.

### Summary: What can and cannot be recycled yet

	What can be recycled	What can't be recycled
<b>Glass</b>	<ul style="list-style-type: none"> <li>• Cold drink, juice, and water bottles</li> <li>• Beer, wine and liquor bottles</li> <li>• Food and sauce containers</li> <li>• Clear drinking glasses</li> </ul>	<ul style="list-style-type: none"> <li>• Windscreens, window glass</li> <li>• Non-clear drinking glasses</li> <li>• Mirrors</li> <li>• Light bulbs</li> </ul>
<b>Plastic</b>	<ul style="list-style-type: none"> <li>• Cold drink, juice, and water bottles</li> <li>• Shampoo bottles</li> <li>• Soap/dishwashing liquid bottles</li> <li>• Plastic jars</li> <li>• Milk bottles</li> <li>• Sauce bottles</li> <li>• Plastic furniture</li> <li>• Buckets</li> <li>• Plastic shopping bags and bread bags</li> <li>• Bottle caps</li> </ul>	<ul style="list-style-type: none"> <li>• 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: </li> <li>• PET bottles that have the ink label printed directly onto the plastic</li> <li>• PET bottles with a metal cap and closure</li> <li>• Brightly coloured, neon, opaque or metallic PET bottles</li> </ul>
<b>Metal</b>	<ul style="list-style-type: none"> <li>• Aerosol cans</li> <li>• Cold drink and juice cans</li> <li>• Bottle caps</li> <li>• Tinfoil trays</li> <li>• Food cans</li> <li>• Metal containers, tinfoil</li> </ul>	<ul style="list-style-type: none"> <li>• Paint cans, motor oil cans</li> <li>• Batteries</li> <li>• CDs</li> <li>• Anything that contains mercury or lead</li> </ul>
<b>Paper</b>	<ul style="list-style-type: none"> <li>• Magazines, newspapers, books</li> <li>• Office and shredded paper</li> <li>• Envelopes</li> <li>• Cardboard boxes of any kind</li> <li>• Paper cartons for food and drink</li> </ul>	<ul style="list-style-type: none"> <li>• Used paper plates</li> <li>• Disposable nappies, tissues, and toilet paper</li> <li>• Used cement bags</li> <li>• Used dog food bags</li> <li>• Laminated paper</li> </ul>

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.

# Introduction

### Acronyms:

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

# Section B Intermediate Phase Grade 6

<b>Name of Lessons: Be a waste warrior!</b>	<b>Time: 3 x 30 minutes</b>	
<b>Grade 6</b>	<b>Subject: Mathematics (Data Handling); English (Writing and Presenting)</b>	
<p><b>Curriculum Standards (CAPS):</b>  <b>Mathematics Term 1: Data Handling</b></p> <ul style="list-style-type: none"> <li>• Collecting and organising data</li> <li>• Representing data</li> <li>• Analysing, interpreting and reporting data</li> </ul> <p><b>English First Additional Language Term 4: Writing and Presenting</b></p> <ul style="list-style-type: none"> <li>• Designs a poster             <ul style="list-style-type: none"> <li>o Includes relevant information</li> <li>o Includes a picture</li> <li>o Uses the correct format</li> <li>o Uses design features such as colour and different sizes or kinds of print (font)</li> <li>o Presents neat, legible, final draft</li> </ul> </li> </ul> <p><b>Additional opportunities for extension and CAPS-alignment:</b>  <b>Natural Sciences and Technology Term 2: Mixtures and water resources: Water pollution</b></p>		
<b>Objectives</b>		
<p><b>The learners will be able to:</b></p> <ul style="list-style-type: none"> <li>• Differentiate between, and understand the meaning of reducing, reusing, and recycling.</li> <li>• Compare different types of plastic and make informed choices about what can and cannot be recycled.</li> <li>• Organise a campaign to mobilise their communities to keep their environment clean.</li> </ul>		
<b>Content</b>	<b>Skills</b>	<b>Values</b>
<p><b>Learner Activity 1: Teach your community</b></p> <ul style="list-style-type: none"> <li>• Waste handling – refuse, reduce, reuse, recycle</li> <li>• Public Service Announcement</li> </ul> <p><b>Learner Activity 2: Collecting and calculating</b></p> <ul style="list-style-type: none"> <li>• Data handling</li> <li>• Recycling</li> </ul> <p><b>Learner Activity 3: Vukuzenzele: World Cleanup Day</b></p> <ul style="list-style-type: none"> <li>• World Cleanup Day</li> <li>• Social Responsibility</li> </ul>	<p><b>Learner Activity 1: Teach your community</b></p> <ul style="list-style-type: none"> <li>• Complex problem solving</li> <li>• Critical thinking</li> <li>• Raising awareness</li> <li>• Community mobilisation/involvement</li> </ul> <p><b>Learner Activity 2: Collecting and calculating</b></p> <ul style="list-style-type: none"> <li>• Problem solving</li> <li>• Critical thinking</li> <li>• Decision making</li> </ul> <p><b>Learner Activity 3: Vukuzenzele: World Cleanup Day</b></p> <ul style="list-style-type: none"> <li>• Creativity</li> <li>• Campaigning</li> <li>• Community mobilisation/involvement</li> </ul>	<p>Learners appreciate the importance of caring for the environment and that they are responsible for keeping it clean.</p>
<b>Resources needed</b>		
Pencils/crayons; photograph of rubbish dump from Annexure; photograph of landfill from Annexure; the Petco poster; photocopies of the Learner Activities; if you have access to the internet, see <a href="https://www.worldcleanupday.org">https://www.worldcleanupday.org</a> for more information.		
<b>Teacher preparation before starting</b>		
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.		

# Section B

## Intermediate Phase

### Grade 6

#### Teaching the Learner Activities

##### **Learner Activity 1: Teach your community**

###### **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 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, 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.
- 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 4R's of managing waste – Refuse, Reduce, Reuse, Recycle.
- When you refuse, you say "no" to items you don't need, including single-use items where possible and ask yourself twice if you really need them.
- Encourage learners to try to avoid using items like plastic knives and forks or drink stirrers.
- Reduce means to cut down on the amount of waste we create.
- Reuse means to find new ways to use things that otherwise would have been thrown away.
- Recycle means to turn something used (like plastic milk bottles or cold drink bottles) into something new and useful.
- Only things that cannot be reused or recycled should be thrown away into a rubbish bin.
- At the moment, tissues, toilet paper and nappies cannot be reused or recycled, and must be thrown away.
- At the moment, cigarette butts cannot be recycled and must be thrown away.
- At the moment, clothes cannot be recycled, but they can be reused or repaired (which means to fix something) or repurposed (to make one item into another item).
- There are some things that we can't recycle, even though they are made from glass, metal, paper or plastic.
- PET plastic bottles that are clear or light blue can be recycled into brand new PET plastic bottles.
- Most PET plastic bottles can be recycled, but bottles that have lots of information or logos printed directly on to the plastic bottle won't get collected for recycling at the moment.
- 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 and aren't labelled properly which makes them hard to identify and therefore hard to recycle because a recycler won't know what type of plastic they are made from. But they can be washed and reused.
- Glass jars can be reused (e.g. honey jar). Things that cannot be recycled yet, in South Africa, include chip packets, sweet wrappers, or chocolate wrappers.
- Things like lightbulbs or mirrors can't be recycled with your regular glass recycling currently as this glass has different properties to packaging glass.
- Even though fast-food containers are made of paper, currently we can't recycle them if they have lots of 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.

###### **Refer:**

- Refer learners to the Petco poster and go through the steps of recycling a plastic bottle.

###### **Complete the Learner Activity:**

- Hand out the Learner Activity 1 worksheets.
- Learners read about the importance of not littering, finding ways to reduce the amount of waste that ends up in landfills, and the value of recycling.
- Go through the table of items that can and cannot be recycled yet.
- In groups, learners create a public service announcement (PSA) to teach members of their community not to litter, the benefits of recycling, and which products are recyclable.
- Ensure that learners understand what a PSA is and, if possible, show them examples of PSAs. (Many PSAs were created for the Covid-19 pandemic and learners may be familiar with these.)
- Let learners present their PSAs to other classes (or at a school assembly) as part of their contribution to being waste warriors.



### Learner Activity 2: Collecting and calculating

#### Refer:

- Refer learners to the Petco poster and explain that in this activity, they will focus on the 'collectors'.

#### Explain:

- Collectors are a very important part of the recycling chain.
- Who knows what a collector is?
- Explain the word 'collector', using the definition provided as a guide.
- After the collector has separated the recyclable things into piles of metal, glass, plastic and paper, the collector takes them to the buy-back centre to sell them.
- 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.
- The recycling plant can make many new and useful things from the recyclable materials.

#### Complete the Learner Activity:

- Learners read about the different bottles that Jabu and Lisa collect.
- Learners use the information provided to calculate percentages, median, mean and mode.

#### Revise:

- Revise the calculations with learners:
  - Percentage can be calculated by dividing the value by the total value, and then multiplying the result by 100. The formula used to calculate percentage is:  $(\text{value}/\text{total value}) \times 100\%$ .
  - The mean (also called the "average") is found by adding all of the numbers together and dividing by the number of items in the set:  $(10 + 10 + 20 + 40 + 70) / 5 = 30$ .
  - The median is found by ordering the set from lowest to highest and finding the exact middle. The median is just the middle number: 20.
  - The mode is the most common number in a data set: 10

\* Example: Question 2 (c) on the worksheet: Jabu can sell 114 bottles (the value) out of 120 bottles (the total value) = 95%

Let learners complete the activities (question 2).

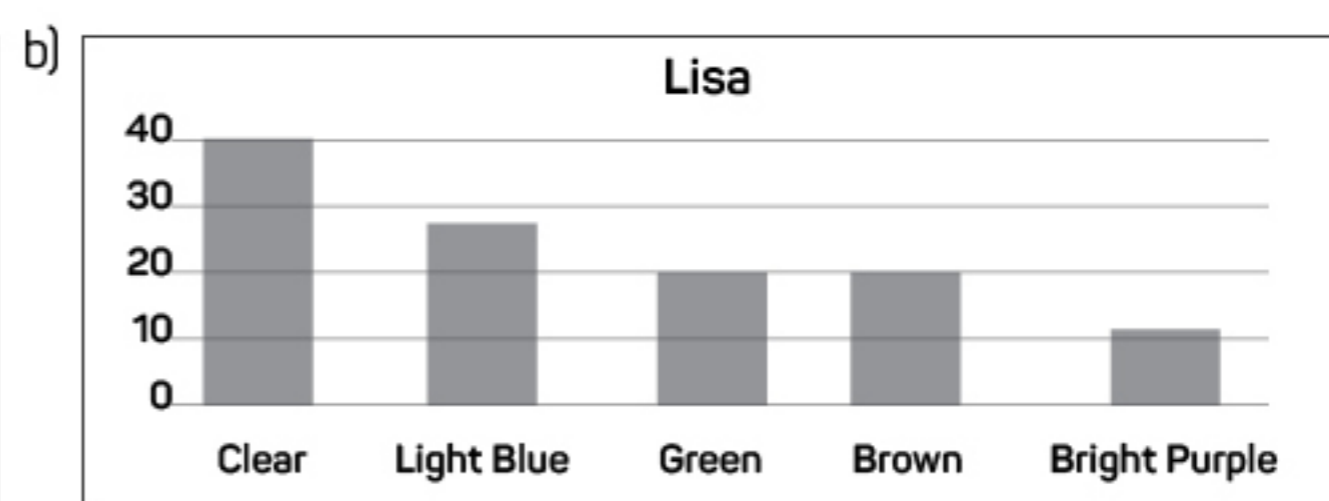
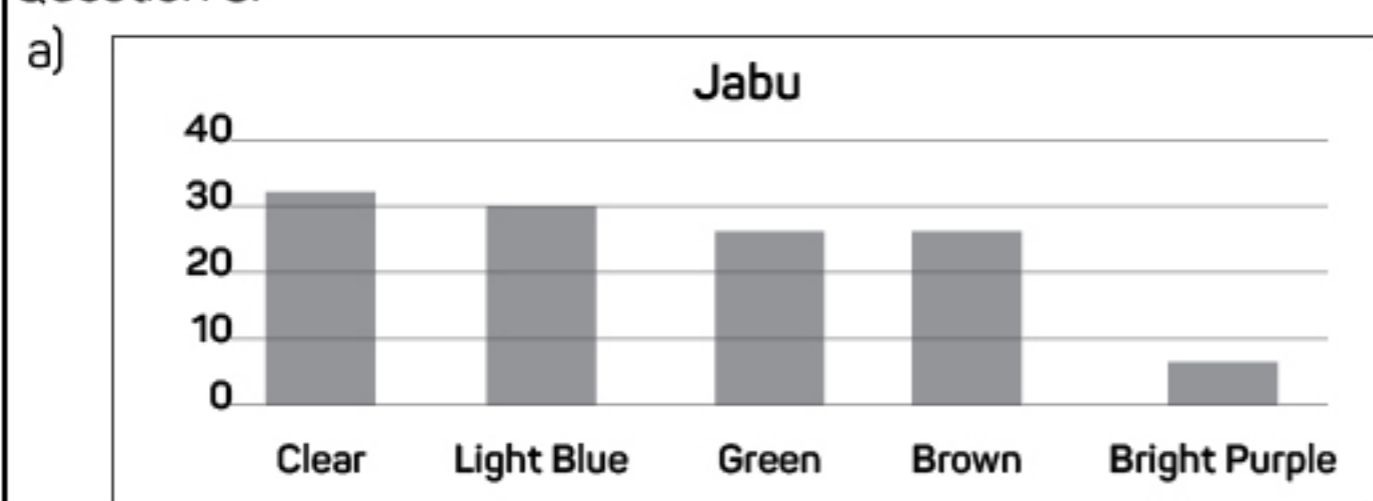
Ensure that all learners' answers are correct before they complete the graphs.

#### Answers to Learner Activity:

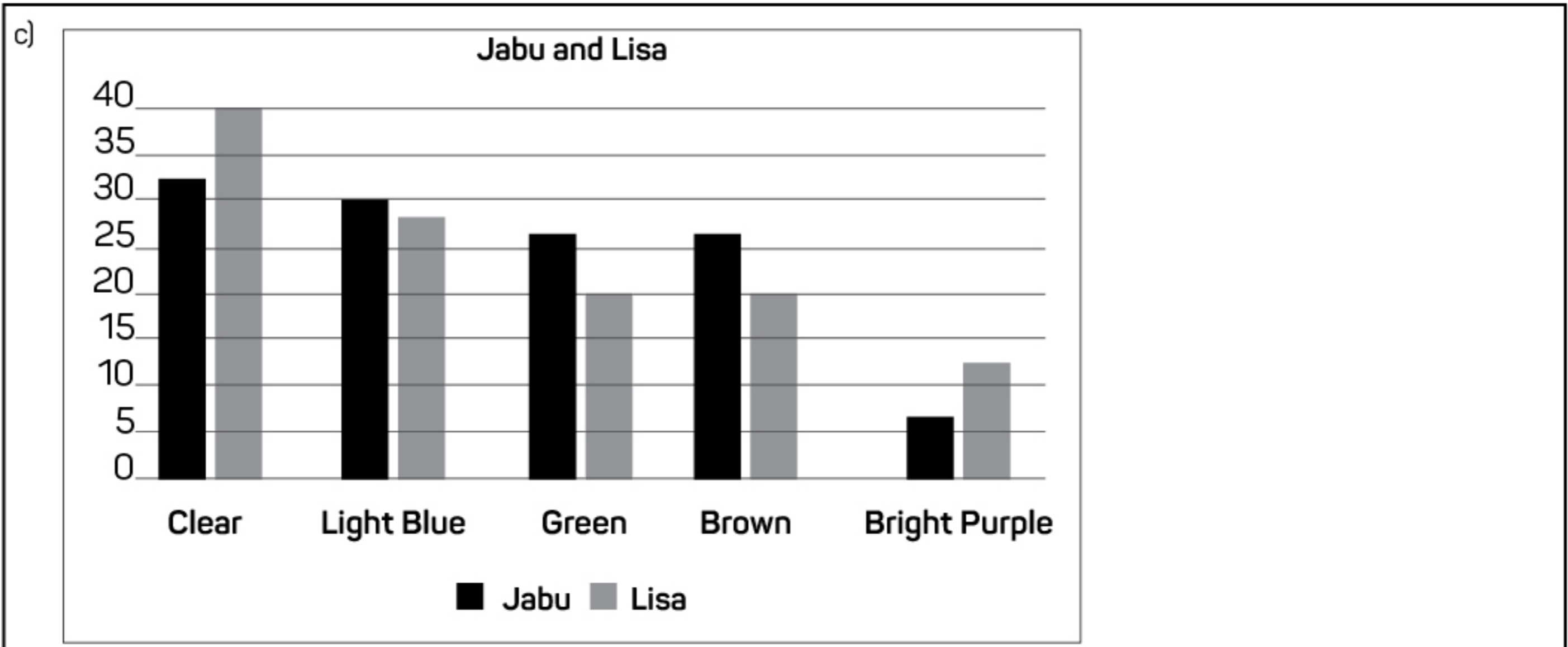
Question 2:

- 120
- 114
- 95%
- 26
- 28
- 120
- 108
- 90%
- 20
- 24

Question 3:



# Section B Intermediate Phase Grade 6



### Learner Activity 3: Vukuzenzele: World Cleanup Day

#### Revise:

- Revise the reasons that waste and litter pose such a great threat to our world (Activity 1).

#### Explain:

- World Cleanup Day is held every single year.

#### Ask:

- Based on everything you have learned about so far, why do you think it is important to have a World Cleanup Day?

#### Explain:

- The word 'Vukuzenzele' means 'get up and do it yourself' in Xhosa.

#### Ask:

- Why do you think this is a good slogan for World Cleanup Day?
- Can the learners think of a slogan in their home language that could be used for a World Cleanup Day campaign?

#### Complete the Learner Activity:

- Hand out the Learner Activity 3 worksheets.
- Learners read about World Cleanup Day.
- In groups, learners plan a 'Vukuzenzele' ('get up and do it yourself' in Xhosa) campaign to participate in this year's World Cleanup Day at their school or in their community.
- Learners design a poster to inform their school or community about their campaign.
- Find out when World Cleanup Day is this year and encourage learners to organise a real World Cleanup Day using the plans and posters they have created in this lesson.

#### 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?

## Teach your community

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

1. Read about the importance of not littering, finding ways to reduce the amount of waste that ends up in landfills, and the value of recycling:

Littering is a big problem in many communities. Litter is unhealthy for people and the environment. Most litter makes its way into rivers and streams and from there to the ocean. You are responsible for your litter – it is your responsibility to throw away your rubbish or to put your packaging into the recycling bin or to organise for it to get taken to a recycler.

Here are some tips on what to do about litter:

- Place your litter in bins – not in the gutter, not in the river, not on the pavement or out of the car window. Just because you can't see it, doesn't mean that it has disappeared.
- If the bin is full, find another one or take your litter home to throw it away.
- Join a local community clean-up drive.

It is important that we collect our waste and dispose of it properly, either by throwing it away in a rubbish bin or, by following the 4R's of waste management:

**Refuse:** Saying "no" to items you don't need (especially single-use plastic).

**Reduce:** Lowering the amount of waste we use and produce.

**Reuse:** Using materials repeatedly (again and again).

**Recycle:** Turning used materials into new products.

When we recycle, we are reusing materials that would otherwise be thrown away as rubbish and end up in a landfill. Recycling helps to reduce the waste in landfills that can take hundreds of years to break down. Cold drink cans, plastic water bottles, plastic milk cartons, papers, and cereal boxes are just some of the items (things) that are recycled every day. If all of us started recycling a few items that we usually throw away every day, we would help to improve the environment for ourselves and future generations.

Recycling is one of the easiest ways to have a positive impact on the world in which we live. By recycling instead of throwing recyclable items away (as rubbish), you are helping our natural environment to be kept clean and beautiful. Recycling can also help people to make money. People are able to earn money by collecting and selling recyclable materials at buy-back centres.

# Section B

## Intermediate Phase

### Grade 6




# Learner Activity 1

Why do some people not recycle? Many people don't know which things can be recycled. They also don't know what to do with the items or where to take them. One of the biggest reasons that people don't recycle is because they don't understand why it is so important and they don't think it makes a difference. But recycling makes a huge difference! For example, recycled plastic is used to make cell phone cases, playground equipment and even clothes! Clear or light blue PET plastic bottles can even be recycled right back into brand new PET bottles!

The four kinds of materials that are the easiest to recycle are glass, plastic, metal, and paper.



Food can also be disposed of (gotten rid of) responsibly. Instead of throwing eggshells, fruit peels and tea bags away, these and other food waste products can be recycled by shredding and mixing them with garden waste to make compost. Compost places nutrients into the soil and helps the soil retain water – this then helps our plants to grow.

The table below shows us exactly what kinds of products are and aren't recyclable yet.

	What can be recycled	What can't be recycled
<b>Glass</b>	<ul style="list-style-type: none"> <li>• Cold drink, juice, and water bottles</li> <li>• Beer bottles</li> <li>• Wine and liquor bottles</li> <li>• Food and sauce containers</li> <li>• Clear drinking glasses</li> </ul> 	<ul style="list-style-type: none"> <li>• Windscreens</li> <li>• Window glass</li> <li>• Non-clear drinking glasses</li> <li>• Mirrors</li> <li>• Light bulbs</li> </ul>
<b>Plastic</b>	<ul style="list-style-type: none"> <li>• Cold drink, juice, and water bottles</li> <li>• Shampoo bottles</li> <li>• Soap/dishwashing liquid bottles</li> <li>• Plastic jars</li> <li>• Milk bottles</li> <li>• Sauce bottles</li> <li>• Plastic furniture</li> <li>• Buckets</li> <li>• Plastic shopping bags and bread bags</li> <li>• Bottle caps</li> </ul> 	<ul style="list-style-type: none"> <li>• 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:</li> </ul>  <p><i>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.</i></p> <ul style="list-style-type: none"> <li>• PET bottles that have the ink label printed directly onto the plastic</li> <li>• PET bottles with a metal cap and closure</li> <li>• Brightly coloured, neon, opaque or metallic PET bottles</li> </ul>

# Section B Intermediate Phase Grade 6

# Learner Activity 1

	What can be recycled	What can't be recycled
<b>Metal</b>	<ul style="list-style-type: none"> <li>• Aerosol cans</li> <li>• Cold drink and juice cans</li> <li>• Bottle caps</li> <li>• Tinfoil trays</li> <li>• Food cans</li> <li>• Metal containers</li> <li>• Tinfoil</li> </ul> 	<ul style="list-style-type: none"> <li>• Paint cans</li> <li>• Batteries</li> <li>• Motor oil cans</li> <li>• CDs</li> <li>• Anything that contains mercury or lead</li> </ul>
<b>Paper</b>	<ul style="list-style-type: none"> <li>• Magazines</li> <li>• Newspapers</li> <li>• Books</li> <li>• Office and shredded paper</li> <li>• Envelopes</li> <li>• Cardboard boxes of any kind</li> <li>• Paper cartons for food and drink</li> </ul> 	<ul style="list-style-type: none"> <li>• Used paper plates</li> <li>• Disposable nappies, tissues, and toilet paper</li> <li>• Used cement bags</li> <li>• Used dog food bags</li> <li>• Laminated paper</li> </ul>

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/>

This table gives you an idea of the kinds of items that are recyclable, in South Africa, at the moment. Ask your teacher to check with your local municipality, local collection business or you can ask a collector to confirm which items are recyclable in your area.

# Section B

## Intermediate Phase

### Grade 6

2. Divide into groups.
3. Use the information on the previous page to create a public service announcement to teach members of your community not to litter, the benefits of recycling, and which products are recyclable.

A public service announcement (PSA) is a short 60 – 120-second video or radio message that educates people about important topics. PSAs try to help people to change the way they act or behave. For example, you may have seen PSAs about road safety (always wear a safety belt!) and about staying safe when you are online (never give a stranger your address!). During Covid-19, many PSAs were made about the importance of washing our hands and wearing masks.

When you create a public service announcement, there are 4 important things to consider and questions that you must answer:

- |                       |   |
|-----------------------|---|
| Your target audience: | Who do you want to reach with this message?                     |
| Your message:         | What do you want the people who see your message to understand? |
| Its significance:     | Why is this important to your audience?                         |
| Your call to action:  | What do you want your audience to do?                           |

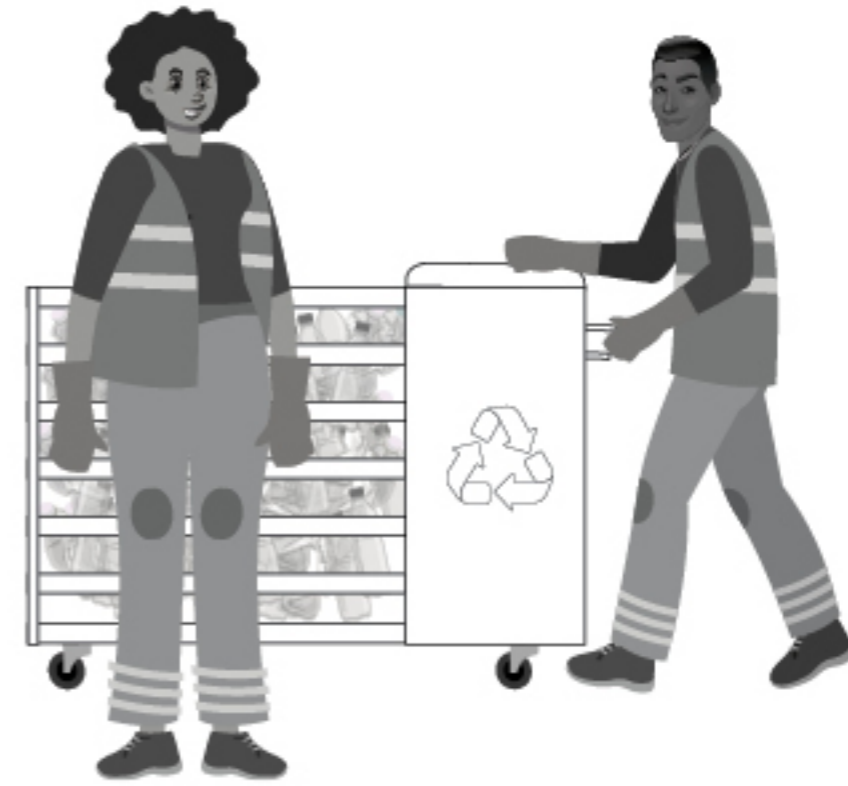
# Learner Activity 1

# Collecting and calculating

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

1. Jabu and Lisa are Collectors. They have been hard at work all day, collecting recyclable items to take to the buy-back centre to sell.

Jabu and Lisa know that they can only sell PET bottles that are clear, light blue, brown, and green in colour at the buy-back centre. PET bottles that are brightly coloured, opaque or metallic cannot be recycled and so they will not be bought by a buy-back centre.



Before Jabu and Lisa can take their bottles to the buy-back centre, they must sort the bottles that they have collected into piles of the same-coloured PET bottles. They also need to remove the bottles that are brightly coloured and place them in the rubbish bin or find another use for them.

Look at this table of the number of PET bottles that Jabu and Lisa have collected:

	Clear PET bottles	Light blue PET bottles	Green PET bottles	Brown PET bottles	Bright Purple PET bottles
Jabu	32	30	26	26	6
Lisa	40	28	20	20	12

2. Answer the following questions, based on the data in the table:
- What is the total number of bottles that Jabu collected? \_\_\_\_\_
  - How many of these bottles will Jabu be able to sell at the buy-back centre?  
\_\_\_\_\_
  - What percentage of the total number of bottles that Jabu collected will he be able to sell at the buy-back centre? \_\_\_\_\_
  - What is the mode of the bottles that Jabu will be able to sell at the buy-back centre? \_\_\_\_\_
  - What is the median of the bottles that Jabu will be able to sell at the buy-back centre? \_\_\_\_\_
  - What is the total number of bottles that Lisa collected? \_\_\_\_\_
  - How many of these bottles will Lisa be able to sell at the buy-back centre?  
\_\_\_\_\_
  - What percentage of the total number of bottles that Lisa collected will she be able to sell at the buy-back centre? \_\_\_\_\_
  - What is the mode of the bottles that Lisa will be able to sell at the buy-back centre? \_\_\_\_\_
  - What is the median of the bottles that Lisa will be able to sell at the buy-back centre? \_\_\_\_\_

## Section B Intermediate Phase Grade 6

3. Draw the following bar graphs:
- a) Use the data in the table to complete the bar graph for the total number of bottles that Jabu collected:



- b) Use the data in the table to complete the bar graph of the total number of bottles that Lisa collected:



- c) Complete the double bar graph to compare the number of bottles that Jabu and Lisa collected:





## Vukuzenzele: World Cleanup Day

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

World Cleanup Day is an annual worldwide social action campaign to bring attention to fighting the problem of solid waste in our environment.

The idea for World Cleanup Day came from an event in Estonia in 2008, when 4% of the population came out to clean up all the illegally dumped waste across the entire country.



Source: <https://www.worldcleanupday.org/>

The first World Cleanup Day was held in 2018. Since then, the campaign has spread to 190 countries around the world. So far, over 200 000 tons of waste has been collected! South Africa has participated in World Cleanup Day since 2018, and every year, there are many events around the country for people to participate in this important campaign. Find out when World Cleanup Day is being held this year.

2. Plan a 'Vukuzenzele' ('get up and do it yourself' in Xhosa) campaign to participate in this year's World Cleanup Day at your school or in your community.
3. Use these questions to help you to plan your campaign:
  - What do you want to achieve with your campaign?
  - Who do you want to reach out to?
  - What activities will you plan for your campaign?
  - How will you inform the teachers and learners at your school or the members of your community?
  - How will you motivate people to participate in your campaign and take action?
4. Here are some tips for planning a successful campaign:
  - You will need to get as many people involved as possible. The more people involved, who have a voice and are respected in your school or community, the better the chance of your campaign succeeding.
  - Speak (or write letters) to your principal, schoolteachers, parents/guardians, friends, and community as well as religious leaders to get their support.
  - Think about using your public service announcement, from the previous lesson, to bring attention to the need for a recycling and anti-littering campaign.
  - Find a local collector or collection service/drop-off site where you will be able to take your recyclables when you have collected them.
5. Design a poster to inform your school or community about your campaign. The more people see what you are planning, the more they will want to get involved.

## Learner Activity 3

# Section C Resource Section

# 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:

<b>Waste:</b>	Unwanted things that are thrown away after we have used them.
<b>Litter:</b>	Waste such as paper, cans, and plastic left lying in an open place.
<b>Environment:</b>	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.
<b>Reduce:</b>	To make smaller or use less of. To cut back on what we buy and the waste we make.
<b>Reuse:</b>	To find many new ways to use waste, so that we don't throw it away.
<b>Recycle:</b>	To use waste to remake new goods that can be sold and used again.
<b>Rubbish dump:</b>	A rubbish dump is a place where waste is left in one place on top of the ground.
<b>Landfill:</b>	A landfill is a place where waste is taken to be buried in a big hole in the ground.
<b>Compost:</b>	Food waste and rotting plants that are used as food for growing new plants and food.
<b>Material:</b>	What something is made from.
<b>Community:</b>	A community is a place where people live, work and play.
<b>Collector:</b>	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.
<b>Buy-back centres:</b>	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.
<b>Recycling plant:</b>	A company that buys the recyclable materials from the buy-back centre. Then they make new and useful things from the materials.
<b>Packaging:</b>	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.
<b>Container:</b>	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.

Photograph of rubbish dump



Source: Petco

Photograph of landfill



Source: Petco

Annexure







For more information email [schoolclub@pnp.co.za](mailto:schoolclub@pnp.co.za)