



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

CAPE TOWN

WASTE CHAMPIONS

PLEASE KEEP CAPE TOWN CLEAN!



This Waste Champions activity booklet belongs to:

Name: _____

Date: _____

School: _____



wastewise@capetown.gov.za



www.capetown.gov.za/solidwaste



0860 103 089

Solid Waste education resources:

<https://bit.ly/CCT-SW-Education>

Meet the team of

WASTE CHAMPIONS

Hi, I am
Mark

Hi, I am
Zola

Hi, I am
Bingo





Whenever you see this symbol  it means the word is explained in the glossary on page 42 of this booklet.

With our team of Waste Champions  and your help, we intend to have loads of fun developing your understanding of:

- What kind of waste  we produce everyday.
- How this waste has an impact on the City of Cape Town.
- What you can do to become a number one Waste Champion.



Waste Champions understand the following 5 steps when it comes to managing waste responsibly. Discuss these concepts with your teacher, friends or parents.

REDUCE



1

**Reduce the amount of waste you produce.
Do I really need to buy this item?**

REUSE



2

Reuse items as many times as possible. What is the best way to reuse this product or packaging?

RETHINK



4

Rethink when you dispose of your waste and the impact to the environment.

RECYCLE



3

Sort your waste and place it in the correct recycling bin.

DISPOSE

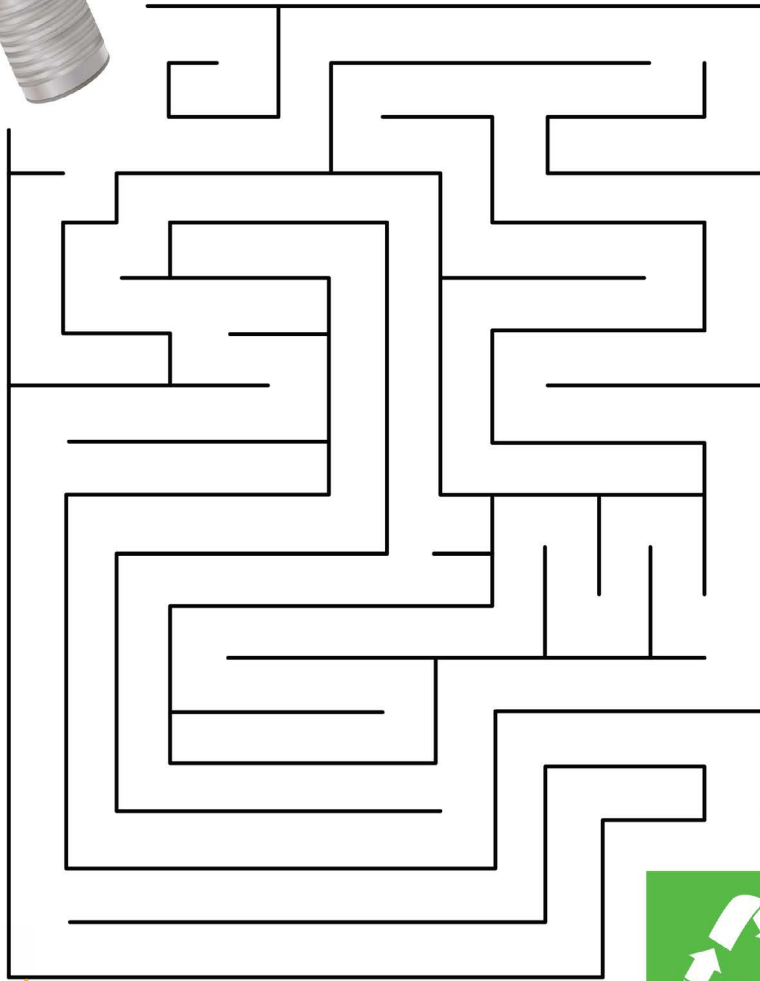


5

Dispose of what is left in a responsible way. Do not litter or dump. Ensure that waste is disposed of safely.

MAZE ACTIVITY

Theme: Help Bingo be responsible and get the can to the recycling bin.



Did you know? Aluminum can be recycled from cans and any other aluminum sources.

IMPORTANT TO NOTE



Important to note:

Waste being dumped can have damaging effects. The presence of broken glass, metal cans, or syringes poses risks of injury, such as cuts or infections if stepped on.

Littering can also harm our animals or even result in blocked drains, leading to the flooding of roads during heavy rainfall.

WET AND DRY WASTE

Theme: types of waste and different waste streams

Waste is divided into two main categories: **wet waste** (moist and dirty) and **dry waste** (completely dry and clean). Waste is further divided into the following **waste streams**:



- **Metals** – tins and cans



- **Cardboard** – milk and juice cartons, cardboard boxes



- **Glass** – jars, cosmetic bottles, spice bottles, cooldrink bottles



- **Plastics** – milk sachets, plastic jars, cooldrink bottles, juice bottles, yoghurt tubs, plastic bags



- **Organic waste** 🥕 – fruit and vegetable peels, used tea bags, garden waste



- **Electronic waste (e-waste)** – fridges, computers, stereos, DVD players, fax machines, cell phones



- **Oil** – used cooking oil, used motor oil



- **Paper** – newspaper, magazines, office paper



- **Tyres** – rubber tyres for cars, bicycles, etc.



- **Builder's rubble** – bricks, cement, stones, rocks, sand, rubble

COLLAGE ACTIVITY

Now that you understand Wet and Dry waste, split into groups and **create a poster collage** with your own examples.



- Divide into groups.
- Each group is to build a collage made up of wet and dry waste.
- Use the waste streams to help you think of examples.
- Use old magazines to find pictures to create your collage.
- Once you have created your collage, give it a heading: wet and dry waste.
- Label the examples of the waste streams.

WORD SEARCH ACTIVITY

Theme: Words that we associate with waste management









Find the words listed below and draw a line around them like the one indicated in purple.

- | | | | |
|---|--------------------|---|---|
| 1. reduce  | 6. plastic | 11. methane | 16. landfills  |
| 2. dispose | 7. cardboard | 12. Zibi | 17. recycle  |
| 3. tins | 8. paper | 13. glass | 18. planet |
| 4. metals | 9. litter | 14. organic  | 19. global warming  |
| 5. reuse  | 10. carbon dioxide | 15. poison | 20. compost  |

R	E	C	Y	C	L	E	O	X	T	P	E	P	G
E	X	X	I	G	R	S	R	X	I	L	S	O	L
P	A	X	B	L	E	X	G	X	N	A	L	I	O
A	X	L	I	A	U	R	A	C	S	S	A	S	B
P	X	I	Z	S	S	X	N	A	X	T	T	O	A
R	X	T	X	S	E	X	I	R	X	I	E	N	L
M	E	T	H	A	N	E	C	D	W	C	M	X	W
X	X	E	T	X	S	X	X	B	X	X	X	R	A
C	A	R	B	O	N	D	I	O	X	I	D	E	R
C	O	M	P	O	S	T	X	A	I	X	X	D	M
A	X	S	X	R	X	X	X	R	X	S	X	U	I
X	I	P	L	A	N	E	T	D	O	X	X	C	N
D	X	L	A	N	D	F	I	L	L	S	W	E	G

Once all the words have been circled, find all the single letters left (ignore the letter X).
Using these 16 letters, make two words.

Clue: w _ _ _ _ _ _ _ _ _ _ s.

CROSSWORD PUZZLE ACTIVITY

Theme: Reflecting on what we have already discovered.



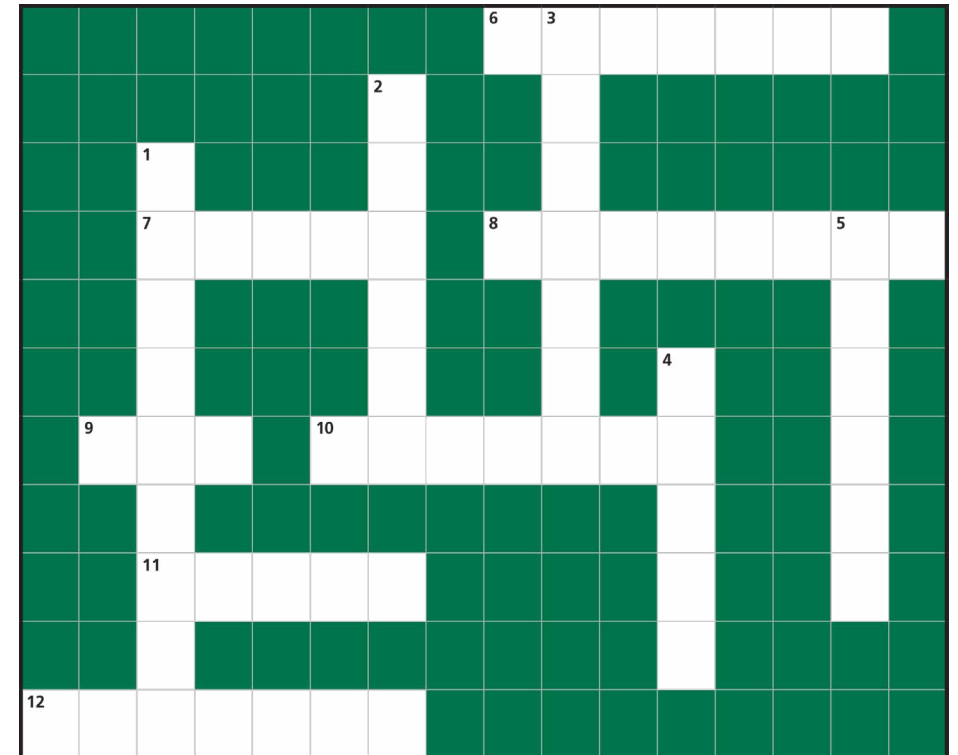
Down

1. Waste that you should not place in your normal bin.
2. Deciding whether I really need an item or not.
3. Waste that can be used in your compost heap or worm farm.
4. Thinking about what else I could use this item for
5. Pieces of rubbish that have been carelessly left on the ground, especially in a public place or outdoors

Across

6. A mixture of decaying plants and vegetables that is added to soil to improve its quality.
7. Not producing waste in the first place.
8. A site where waste material has been buried.
9. Waste that you can recycle, e.g. paper.
10. Making new and useful items from waste especially in a public place or outdoors

11. A smell, whether pleasant or unpleasant.
12. Ensure that this is done safely and responsibly.



1. Hazardous 2. Reduce 3. Organic 4. Reuse 5. Litter 6. Compost
7. Avoid 8. Landfill 9. Dry 10. Recycle 11. Odour 12. Dispose

RECYCLING ACTIVITY (CUT, STICK AND SORT)

Theme: Organize Waste into bins

Cut out and place waste into correct categories. Ask your Teacher or Adult to assist you. See how many items you can place in the correct bins.



Did you know? The liquid that is formed as waste starts to decay in a landfill is called leachate 🕶️.



RECIPE AND DESIGN ACTIVITY SHEETS

Theme: Environmentally friendly cleaning products.



We all need to keep our homes clean and free from germs, right?

However, when we do this, we use harmful chemicals and strong detergents, which we buy from the supermarket.

As Waste Champions, we need to find more environmentally friendly ways to keep our homes clean.

Did you know? Many ingredients in our kitchen cupboards are useful for a variety of purposes around the home.

Let's look at our shopping list. You need to share this information with adults. Tell them the good news is that these products are not only good for the environment, they are cheaper to purchase too!



Baking soda

- Cleans and polishes without scratching the surface
- Fabric softener
- Stain remover
- Deodorises smelly carpets and refrigerators



Lemon juice

- Deodorises
- Cleans glass



Borax

- Deodorises
- Removes stains
- Discourages mildew and mould



Salt

- Great abrasive for cleaning and scouring.
- Just be careful, as it may scratch some surfaces.



White vinegar

- Cuts through grease on surfaces.



Washing soda

- Cuts through stubborn grease and fat on grills, pans and ovens. This you need to get at a pharmacy.

Get an adult to help you with this natural Household Cleaner Recipe !



1. A recipe to try with Mom and Dad:

All-purpose household cleaner

- Add 1 teaspoon (5 ml) of liquid soap,
- 1 teaspoon (5 ml) of borax and
- A ¼ cup (62 ml) of undiluted white vinegar to
- 1 litre of warm water.

Mix and store in a spray bottle to use when cleaning counter tops, floors, walls and carpets.

2. Think of a name and design a label for your new product.

Please include "Waste Champion" in your design.

REUSE AND RECYCLE ACTIVITY

Theme: Creating something useful out of waste.



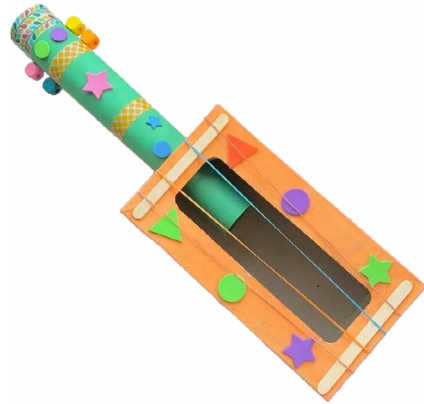
Making music instruments from waste materials is a fun and creative way to encourage kids to reuse and recycle. We've provided instructions for creating three simple instruments:

A Guitar

A Shaker

A Drum

Guitar:



Materials needed:

- An empty tissue box or shoebox
- Rubber bands (preferably different sizes)
- Pencil or pen

Instructions:

1. Remove the lid from the box.
2. Stretch the rubber bands lengthwise around the box, ensuring they are tight. Space them out to create different pitches.
3. Use a pencil or pen to press down on the rubber bands at different points along the box to change the pitch.
4. Kids can pluck the rubber bands to produce sounds similar to a guitar.

Shaker:



Materials needed:

- Empty plastic bottles (small water bottles or soda bottles)
- Small objects (e.g., dried rice, beans, pasta, or pebbles)
- Tape or glue
- Decorative materials (optional)

Instructions:

1. Rinse and dry the plastic bottles thoroughly.
2. Fill each bottle with a small amount of your chosen objects, such as rice, beans, pasta, or pebbles. Be mindful not to overfill it.
3. Seal the bottle with tape or glue to prevent the objects from falling out.
4. Decorate the bottle with colored paper, stickers, or any other materials to make it visually appealing.

Drum:



Materials needed:

- An empty cylindrical container (e.g., a coffee can or oatmeal container)
- Balloons or rubber bands
- Scissors

Decorative materials (optional)

Instructions:

1. Ensure the container is clean and dry.
2. Stretch the balloon or rubber band around the open end of the container. Make sure it is tightly secured. If you're using a rubber band, you can attach it by cutting small slits in the container's edge and looping the band through them.
3. You can decorate the drum with coloured paper, stickers, or any other materials you have on hand.
4. To play the drum, kids can use their hands or drumsticks to tap the stretched surface, creating different sounds.



Now that you have three musical instruments, use them to play along to this song.

You can make up your own tune.

Have fun!

Reduce, reuse, recycle, words that we all know
We have to save our planet, so we can live and grow

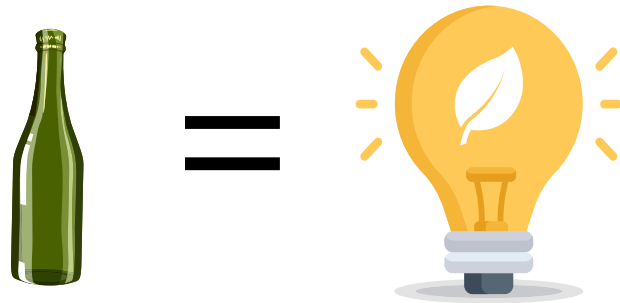
We might be only children, but we will try, you'll see
And we can save this planet, it starts with you and me.

Recycling saves money and protects the earth
Helps keep things green and we need you on the team

It all begins with you and me
It is our responsibility.

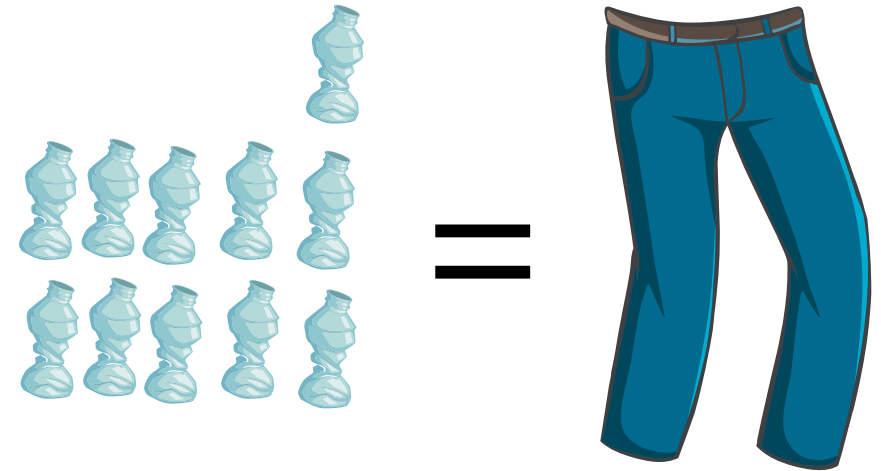
WORD SEARCH ACTIVITY

Theme: Mathematical quantities



Read through these facts about waste management:

- One recycled tin can would save enough energy to power a television for 3 hours.
- One recycled glass bottle would save enough energy to power a computer for 25 minutes.
- One recycled plastic bottle would save enough energy to power a 60 watt light bulb for 3 hours.
- Glass is almost 100% recyclable.



- 70% less energy is required to recycle paper compared with making it from raw materials.
- 1 litre of oil can contaminate 1 000 000 litres of water.
- 11 recycled plastic bottles can be recycled into a pair of men's trousers.
- South African newspapers are being printed on paper that contains 25% recycled paper.

Find the quantities listed below and draw a line around them like the one indicated in orange

- | | |
|----------------|-------------|
| 1. one | 8. million |
| 2. three | 9. energy |
| 3. eleven | 10. hundred |
| 4. twenty-five | 11. minutes |
| 5. sixty | 12. hours |
| 6. watts | 13. litres |
| 7. seventy | |

Once all words have been circled, find all the single letters left over (ignore the Xs). Using these 8 letters, make one word.

Clue: _ _ c _ _ _ _

T	H	R	E	E	X	R	O	N	E
W	A	T	T	S	X	X	X	X	X
E	X	E	X	S	I	X	T	Y	X
N	E	N	C	E	S	R	U	O	H
T	N	O	X	V	X	X	L	X	U
Y	E	I	X	E	L	E	V	E	N
F	R	L	X	N	Y	X	X	X	D
I	G	L	I	T	R	E	S	X	R
V	Y	I	C	Y	X	X	X	X	E
E	E	M	I	N	U	T	E	S	D



Did you know? For every ton of recycled glass turned into new products, 315 kg of extra carbon dioxide that would have been released during the creation of new glass is saved.

WASTE CHAMPION ACTION PLAN AND BADGE

THEME: Taking responsibility

- a) Write down five things that you are going to change about your current behaviour with regard to waste management.

Once you have written them down, you need to stick to them and be a good example to others.

1. _____
2. _____
3. _____
4. _____
5. _____

- b) Design a badge for yourself with the theme 'I am a Waste Champion'.

GLOSSARY

Biodegradable	– Able to decompose naturally.
Compost	– Decayed plant matter.
Contaminate	– To make something impure, unclean or polluted.
Drop-off	– Community drop-off area for waste.
Global warming	– The effect that greenhouse gases have on the climate of the earth.
Greenhouse gases	– Examples of greenhouse gases are carbon dioxide, nitrous oxide, water vapour and methane.
Inorganic	– Not animal or vegetable. Composed of minerals rather than living material.
Landfill	– A scientifically chosen, designed, engineered and managed location for the disposal of waste.
Leachate	– The liquid that is formed as waste starts to decay on a landfill.
Organic waste	– Derived from living things. No use of chemicals.

Recycle	– To make something usable again.
Reduce	– To decrease, make less.
Reuse	– To use again.
Rethink	– To consider or assess again, especially in order to change it.
Separation at source	– Separating waste into waste streams at home before being dropped off.
Toxic	– Containing a poison.
Transfer	– The transfer of waste from a drop-off site to a landfill.
Waste	– Unwanted or unusable household rubbish.
Waste minimisation	– Keeping waste to a minimum by not buying and consuming unnecessary goods.
Waste Champion	– A responsible individual who knows how to manage his/her waste and is a good example to others.

DIFFERENT METHODS OF WASTE COLLECTION.

Did you know? There are different methods of waste collection.

These include **drop-off sites**

(a specific site where waste materials are dropped off),

buy-back centres

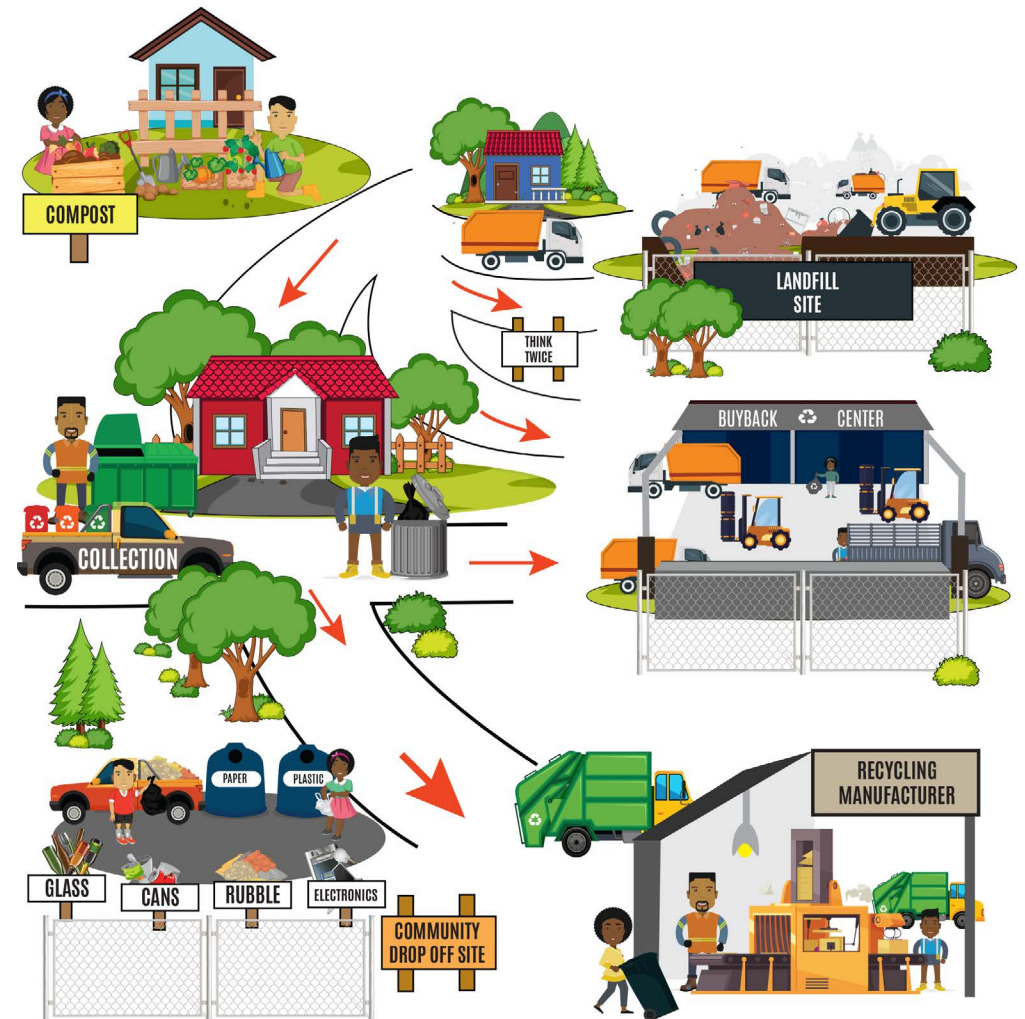
(where certain recyclable materials are exchanged for money) and

kerbside collection

(where recycling vehicles pick up waste material to be



RESPONSIBLE WASTE MANAGEMENT





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