

# Towards Zero Waste



The benefits of Zero Waste & moving towards it NOW!



# RECYCLE RIGHT



**RIVERVALE**  
Primary School

The background of the slide is a repeating pattern of green recycling symbols (three chasing arrows forming a triangle) on a light green background. The symbols are arranged in a grid-like pattern, slightly offset from each other.

# Understand Why We Need to Recycle



1. How much waste do you think Singapore had generated in 2019? (1 tonne = 1000 kg)

(1) 7,234,000 tonnes

(2) 7,670,000 tonnes

(3) 7,700,000 tonnes

(4) 7,810,000 tonnes

**NOTE :**

Teacher(s),

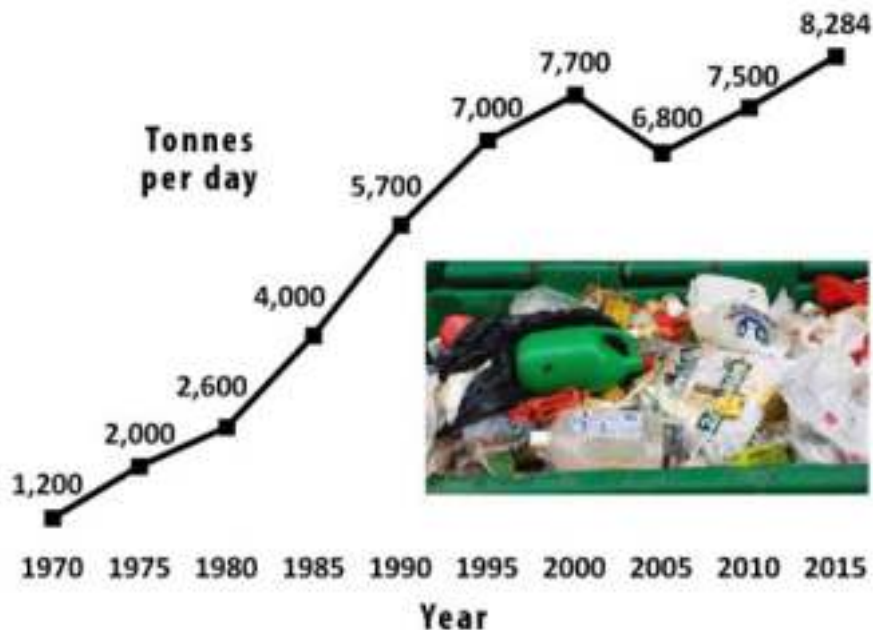
Please key in class response(s) in SLS.

(Majority Consent)

# Do you know ...

Over the past 45 years, the amount of waste disposed in Singapore has increased

## 7 times



In 2015, Singapore disposed  
**8,284,000 kg**  
of waste a day!



# Do you know ...

Although the amount of waste generated has been decreasing from 2018 to 2019, .....

## Singapore

2018	2019
- generated <b>7.7 million</b> tonnes of solid waste	- generated <b>7.234 million</b> tonnes of solid waste
- amount of waste is equivalent to 77,000 <b>BLUE WHALES</b>	- amount of waste is equivalent to 72,300 <b>BLUE WHALES</b>



..... we can still continue to do **MORE** to reduce wastage and strive towards a **"Zero Waste"** lifestyle.

If we continue to throw away  
so much waste in Singapore,  
we will need to build

**1 incineration plant  
every 7-10 years**



At our current rate of waste  
disposal, Singapore's only  
landfill, Semakau Landfill, will  
run out of space by  
**2035**

We can help to protect our environment, save  
resources, and extend the lifespan of our  
landfill by reducing and recycling our waste!



# Why do we need to Recycle?



## **Recycling saves Resources**

When we recycle, used materials are converted into new products, reducing the need to consume natural resources.

Recycling helps conserve important raw materials and protects natural habitats for the future.

## **Recycling saves Energy**

Using recycled materials in the making process, consumes less energy than that required to produce the new products from raw materials.



## **Recycling reduces Incineration**

Our ONLY landfill, Pulau Sumakau is anticipated to fill up by 2035.

To prolong its lifespan, we need to cut down the amount of waste going into the incineration (burning) plants. Lesser air pollution as lesser waste is sent for incineration.

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Learn How to Recycle at HOME and in SCHOOL



# How do we lead a "Zero Waste" lifestyle?



## Recycle

Convert your "trash" into "treasure" by putting your recyclables into the blue recycling bins. These recyclables will be made into new products, saving precious resources!



at HOME



in SCHOOL

## Reuse

Give old items a new lease of life by reusing, donating and/or upcycling them for new purposes with new value.

## Reduce

Use only what you need. Minimise the use of single-use plastics by using your own reusable water bottles, containers and cutlery.

REMEMBER, always REDUCE first, then REUSE, and finally RECYCLE, before you decide to throw away your item(s)!

# Leading a "Zero Waste" lifestyle at HOME and in SCHOOL



**1. Set up a space at home for your recycling bin or bag to collect paper, plastics, metal and glass for recycling.**



**2. Empty recyclable containers of any content. Rinse them if necessary. Place them into your recycling bin or bag.**



**3. When your recycling bin or bag is full, bring it to the blue recycling bin near your house and deposit the recyclables.**



**4. Do not put any food and liquid waste, tissue, ceramics, light bulbs, batteries or bulky items into the recycling bin.**

Do Remember to bring your Home Recyclables to School for our Weekly Recycling as our school participates in the yearly **"GO GREEN"** programme organised by SembWaste Pte Ltd (our long-time working partner for waste disposal).

Why we should repair instead of replace our  
old items ...



<https://www.youtube.com/watch?v=28TiHutnmw4>

*"Repair - a MEWR NDP 2019 short film"*

Singing the national anthem, reciting the pledge, watching and participating in the National Day Parade — these are all part of our shared experiences as Singaporeans.

How far would you go to retrieve such a precious memory? And how rewarding such a journey can turn out to be.

This National Day, watch grandfather and grandson, Osman and Mikhail, as they recapture a lost memory through a simple repair.

[#TowardsZeroWaste](#) [#NDP2019](#)

Presented by | Ministry of the Environment and Water Resources  
Presented by | The Creative Room Pte Ltd



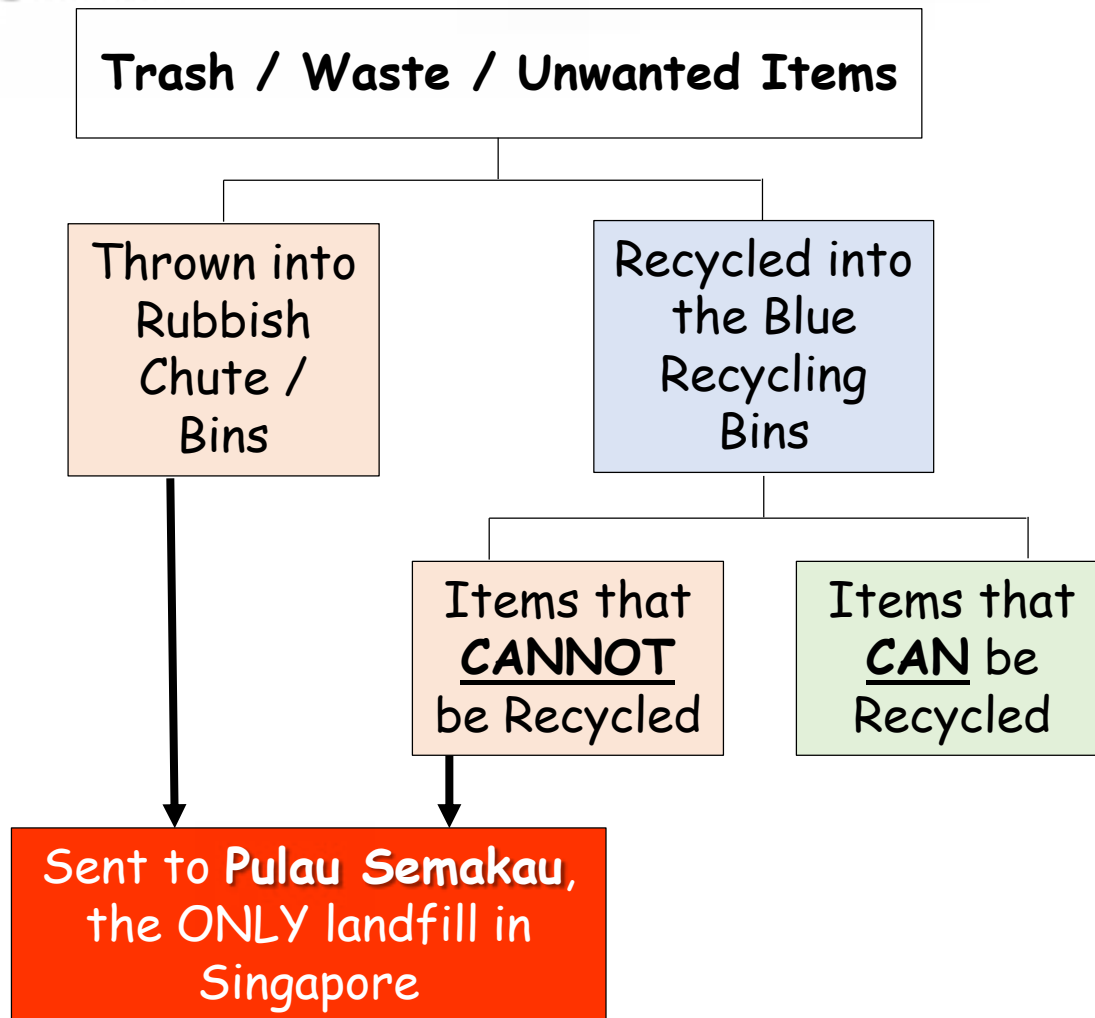
# Learn What Happens to the Waste :

\* thrown down the Rubbish Chutes/Bins

&

\* the Recyclables and Non-Recycled Waste from the Blue Recycling Bins

What happens to our Waste after we  
have **Thrown Down the Rubbish Chutes/Bins**  
**OR Recycled into the Blue Recycling Bins?**





2. Where do you think the Waste that you have recycled in the Blue Recycling Bins go to?
  
3. Where do you think the Waste that CAN be Recycled in the Blue Recycling Bins go to?
  
4. Where do you think the Waste that CANNOT be recycled in the Blue Recycling Bins go to?

**NOTE :**  
Teacher(s),  
Please key in class response(s) in SLS.  
(Majority Consent)

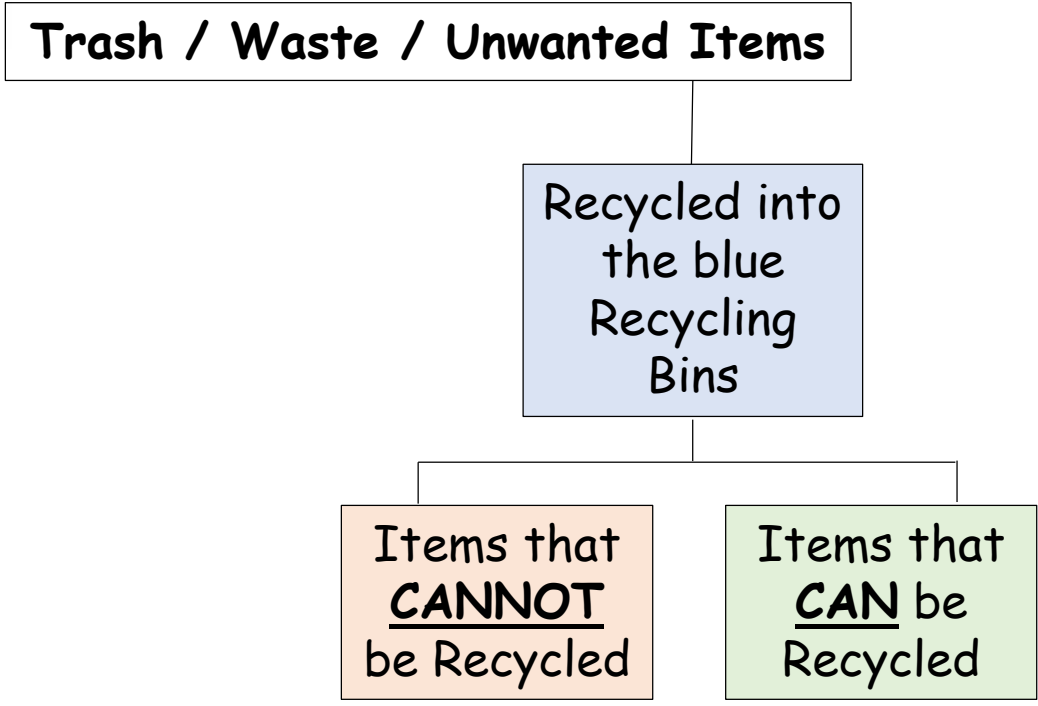
# What happens to our waste after we have Recycled into the Blue Recycling Bins?

Our Waste/Trash in the Blue Recycling Bins



<https://www.youtube.com/watch?v=1eHi2w0ixGo>

*"Follow The Trash"*



# What happens to the Recyclables in the Blue Recycling Bins after Collection

Our Waste/Trash in the Blue Recycling Bins



Goes to a  
Material  
Recovery  
Facility



Recyclables are  
collected by a  
recycling truck



Recycling trucks that have  
the 3R recycling logo  
on the trucks.





# What happens to the Recyclables in the Blue Recycling Bins after Collection



Recyclables are transported by the Recycling Trucks to the Material Recovery Facility.



The Recyclables are placed on conveyor belts for manual sorting according to material types; paper, plastic, metal, glass etc.



The sorted materials are bundled and exported for overseas recycling OR transported to local recycling facilities.



5. Where do you think the (i) Waste / Trash that you have thrown down the Rubbish Chutes/Bins and (ii) the Unrecycled Waste in the Blue Recycling Bins go to?
  
6. What is Sumakau Landfill about? What is this place used for?

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# What happens to our Waste after we have Thrown Down the Rubbish Chutes/Bins and Non-recycled Waste in the Blue Recycling Bins?

- The collection crew go around the island, in the waste collection trucks to clear waste from the rubbish chute/bins.
- After collecting the waste, the waste will be sent to the Incineration Plants (also known as the Waste-to-Energy Plants) for burning.

## 4 Incineration (Waste-to-Energy) Plants in Singapore

- Tuas Incineration Plant (TIP)
- Tuas South Incineration Plant (TSIP),
- Senoko Waste-to-Energy Plant (SWTE)
- Keppel Seghers Tuas Waste-To-Energy Plant (KSTP)
- as well as an offshore landfill, Semakau Landfill.



Trucks that do not have the 3R recycling logo on the trucks, collect the waste from the rubbish chutes/bins



# What happens to our Waste after we have Thrown Down the Rubbish Chutes/Bins and Non-recycled Waste in the Blue Recycling Bins?

- By incinerating (burning) the solid waste, the volume of the waste collected can be reduced by 90%.
- After incinerating the waste, the remaining ash as well as the non-incinerated and non-recycled waste sorted out from the Blue Recycling Bins, will then be transported to Pulau Semakau, Singapore's ONLY offshore landfill, in large barges.
- At Pulau Semakau, the ash (with rainfall) is treated at an onsite wastewater treatment plant to meet the **Trade Effluent Discharge Standard** before being discharged into the open sea.



The waste after incineration, becomes ash.

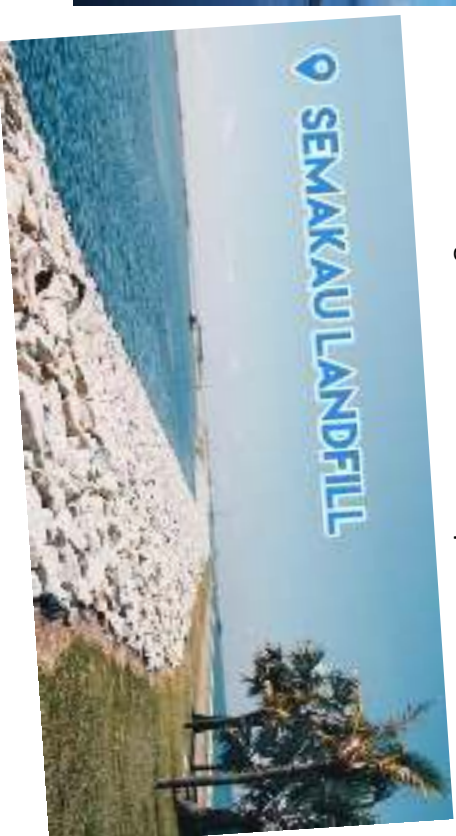


The ash being treated at Semakau before discharged as water into the open sea.

# What happens to our Waste after we have Thrown Down the Rubbish Chutes/Bins and Non-recycled Waste in the Blue Recycling Bins?



The ash being treated at Pulau Semakau before discharged as water into the open sea.



Our Waste/Trash in the Rubbish Chutes/Bins  
+ Non-recycled Waste from the Blue Recycling Bins

# What happens to our Waste after we have Thrown Down the Rubbish Chute/Bins and Non-recycled Waste in the Blue Recycling Bins?



<https://www.youtube.com/watch?v=kuDSxswD184>

*"Can Singapore's Landfill Last Forever?"*

<https://www.todayonline.com/features/trash-talk-no-time-waste-dealing-singapores-mounting-trash-problem>

*click on the video ... "Trash Talk"*



Our Waste/Trash in the Rubbish Chutes/Bins  
+ Non-recycled Waste from the Blue Recycling Bins

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Find Out What CAN and CANNOT  
be Recycled

Do you recycle RIGHT?  
 Do you know what CAN and CANNOT be RECYCLED?



<https://www.youtube.com/watch?v=1Er0g4URyqw>  
 Are you recycling right?

## RECYCLE AT YOUR SCHOOL!

### RECYCLE ITEMS

"What goes inside the blue recycle bin?"

- Plastic
- Paper
- Broken Paper Containers
- Paperback Books
- News Absorbents
- Bottles
- Cans
- Mail and Envelopes
- Magazines
- Newspaper

### TRASH ITEMS

"What goes inside the trash can?"

- Food
- Plastic Bags
- Junk Food
- Photographs
- Sticks of Any Type
- Plastic Wrap
- Disposable Paper Towels
- Light Bulbs
- Pricking Glass
- Jar with Food Contents
- Hardcover Books
- Dirty Napkins

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**ITEMS NOT IN TRASH OR RECYCLE**

Cell Phones

Batteries

Electronic Waste



Do you recycle RIGHT?  
Do you know what CAN and CANNOT be RECYCLED?



# Quiz

(How much have you learnt?)





**NOTE :**

Teacher(s),

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(Majority Consent)



1. If we do not reduce the amount of waste we generate, when will Sumakau Landfill run out of space?

(1) 2025

(2) 2030

(3) 2035

(4) 2040

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2. Which is a way of **reducing FOOD WASTE** in school?

- (1) Bring your own reusable bag
- (2) Set up a recycling corner in the classroom
- (3) Order and buy only what you can finish eating
- (4) Share the unfinished food in your plate with your friend(s)

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3. Which is a way of **reducing DISPOSABLE WASTE** in school?

- (1) Request for paper bags instead of plastic bags
- (2) Donate your bottled drinks bottle(s) after drinking
- (3) Buy bottled mineral water instead of bottled sweetened drinks
- (4) Bring your own container to pack canteen food home after school

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**QUIZ  
TIME!**

4. Can **VITAGEN / YAKULT** bottles be recycled?

(1) Can

(2) Cannot



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**QUIZ  
TIME!**

5. Can soiled **DIAPERS** be recycled?

(1) Can

(2) Cannot



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**QUIZ  
TIME!**



6. Can **POLYSTYRENE FOAM PRODUCTS** (like styrofoam boxes) be recycled?

(1) Can

(2) Cannot



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**QUIZ  
TIME!**

7. Can **PLASTIC BAGS** be recycled?

(1) Can

(2) Cannot



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# Do you know why Plastic Bags cannot be Recycled?



- ❖ When plastic bags are recycled into the Blue Recycling Bins, they will tangle and get stuck in the sorting equipment / conveyor belts at the Material Recovery Facility. These plastic bags will have to be detangled manually by people.
- ❖ Not all plastic is biodegradable (i.e. cannot be completely decomposed).

**QUIZ  
TIME!**

8. Can **TOYS** be recycled?

(1) Can

(2) Cannot



**NOTE :**  
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**QUIZ  
TIME!**

9. Can **SHAMPOO / SHOWER BOTTLES** be recycled?

(1) Can

(2) Cannot



**NOTE :**

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**QUIZ  
TIME!**

10. Can **PAPER** (like tissue paper, toilet paper, kitchen towel, disposable wooden chopsticks) be recycled?

(1) Can

(2) Cannot



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# Riverlites' Way of Living towards ZERO WASTE

## Weekly Recycling



**RIVERVALE**  
Primary School

# Riverlites' Way of Living towards ZERO WASTE

## Our OUTREACH



Outreach about Conservation of Wild Life (Clown Fish) within School



Outreach to the Community about Food Waste Recycling + 3R



Outreach to the Community about Upcycling + Hands-on



Go Green



**RIVERVALE**  
Primary School



# Riverlites' Way of Living towards ZERO WASTE

## Our OUTREACH



Outreach to the Community about Upcycling



Student Leaders' Outreach to the Community about Water-saving + 3R



Outreach to the K2 Children on Reduce, Reuse and Recycle



Outreach to Teachers and Students from Shanghai about Conservation of Wild Life (Seahorse) + Upcycling



**RIVERVALE**  
Primary School



**STAY STRONG,  
SINGAPORE**

SG UNITED SG TOGETHER

**Stay safe  
& stronger  
together**



Ministry of Education  
SINGAPORE



**TOGETHER WE KEEP  
SINGAPORE STRONG**

- Wear your **mask(s)** while recycling at the blue recycling bins
- Keep a **safe distance** from one another while queuing to recycle
- **Wash your hands** after recycling and/or throwing the waste into the rubbish chute(s)/bin(s)



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