

CLEAN IT FORWARD>>

for a better SG



Design Workshop

Saturday, 29 June 2024

10am – 12.30pm

JOS & Sunon Sustainability Experience Centre



Competition Objectives

- Address the littering problem at the source.
- Encourage all to *Rethink and reuse to reduce*
- To prevent irresponsible disposal of bulky household items such as used furniture commonly seen at housing estates' void decks and bin centres
- To reduce wastage of bulky waste by redesigning and repurposing used bulky waste
- To unleash youth's creativity, imagination, designing skills to inspire and spread the message of keeping Singapore clean



Organiser



In Collaboration With



Ministry of Education



J.O.E Eco Alliance

Venue Partners

JAS & Sunon

Supporting Partners



E3 Design Pte Ltd



Semula Pte Ltd



SCA Design



sfic

Singapore Furniture Industries Council

Welead pte. ltd.

Design Process and Competition Mindset

Mr Paul Borrett
Senior Director
E3 Design Pte. Ltd.



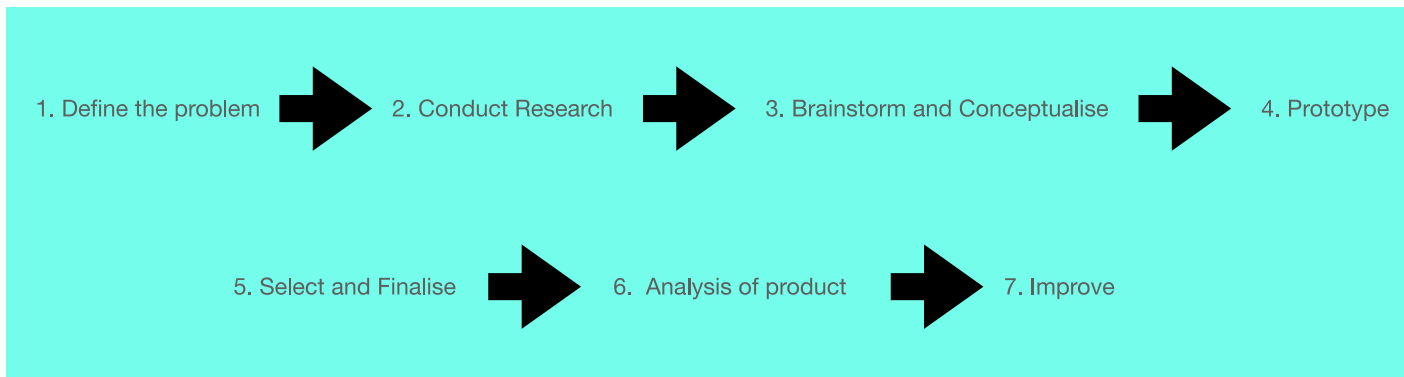
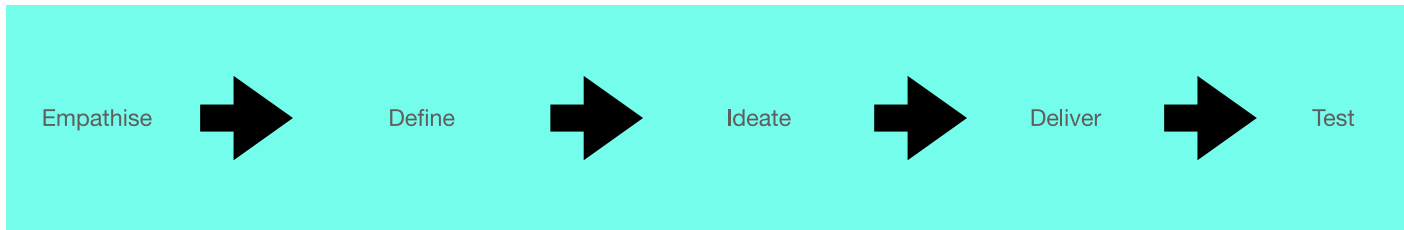
Agenda

- What makes good design? (5 mins by Paul)
- Design Process (5 mins by Paul)
- Famous Designer Quotes (2 mins by Paul)
- Inspiring Video (3 - 5 mins)
- Activity 1 - identify a need or problem to solve for (10 mins by Paul)
- Activity 2 - create your design and submission process (10 mins by Paul)
- Competition Criteria and Mindset (5 mins by Paul)

What makes good design?



Design Process



Famous Designer Quotes

Design is not just what it looks like and feels like. **Design is how it works.** **Steve Jobs.**



Design is an expression of the purpose, and it may - **if it is good enough** - later be judged as art. **Charles Eames.**



Creativity is invention, experimenting, growing, **taking risk**, breaking rules, making mistakes and **having fun.** **Mary Lou Cook.**



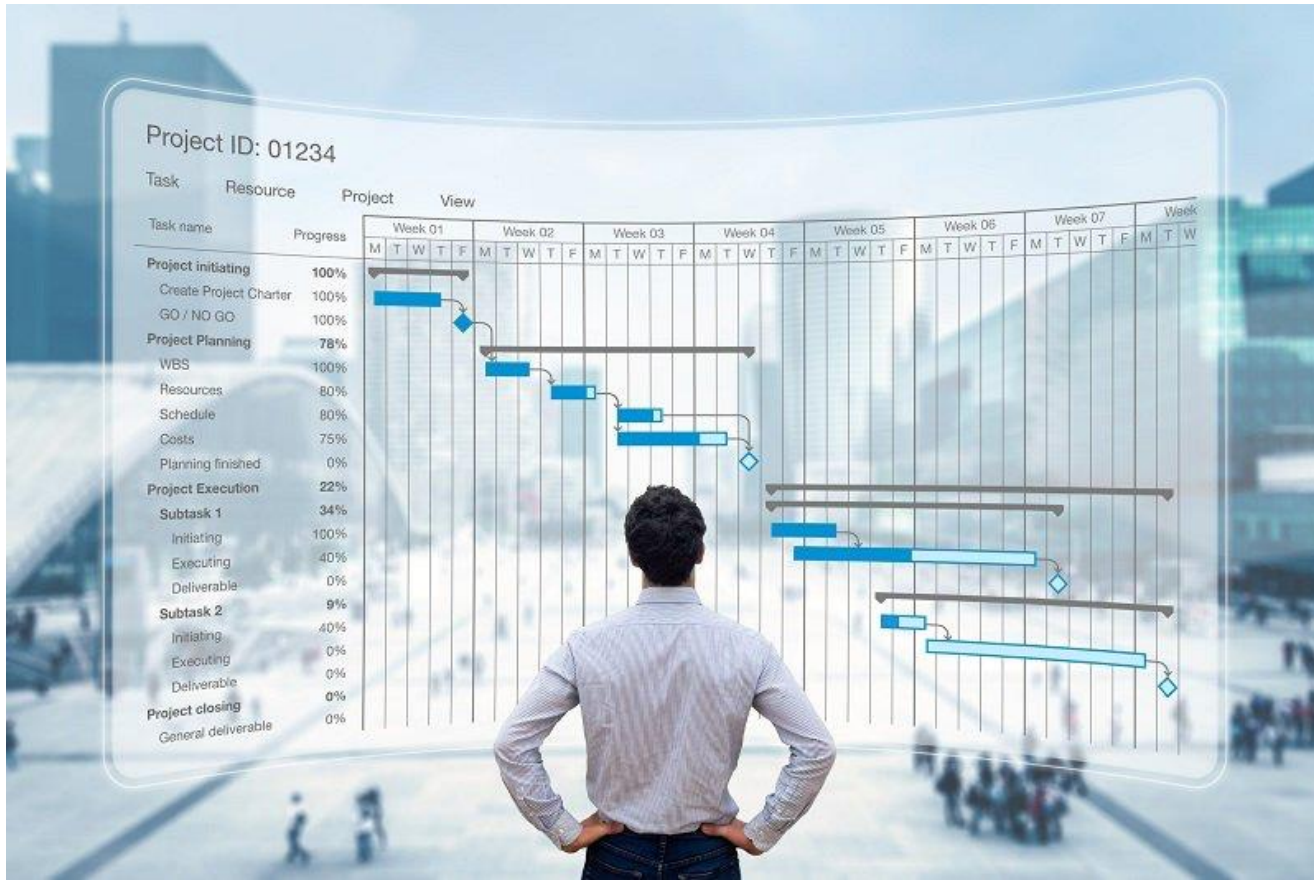
Inspiring Video



Activity 1 : Identify a need



Activity 2 : Create your process



Competition Criteria

- Creativity 30%
- Functionality (40%)
- Sustainability (30%)



Designing to Save the Planet

Mr Jeryl Yep
Co-Founder/Product Innovation Lead
Semula Pte. Ltd.



Designing to Save the Planet

Reimagining Plastic Waste



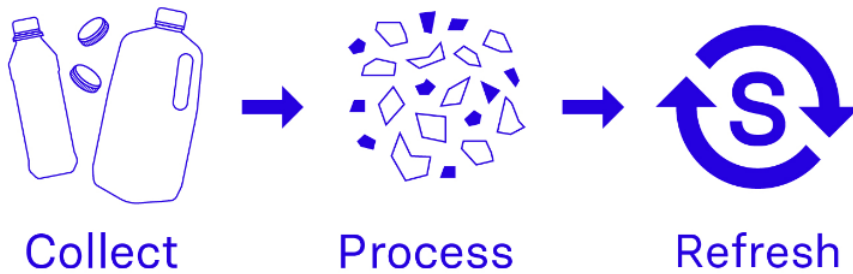
Semula is a local startup and social enterprise. We aim to tackle plastic waste by collecting, processing and refreshing plastic waste into useful materials. These can be used by businesses such as fabricators, builders, designers and artists to reduce the need for new or virgin resources such as stones, wood and marble.

"Semula – To refresh or to renew"





1. Reduce plastic waste by diverting it from landfill and incineration plants
2. Reduce pressure on natural resources by providing alternative materials made from waste.

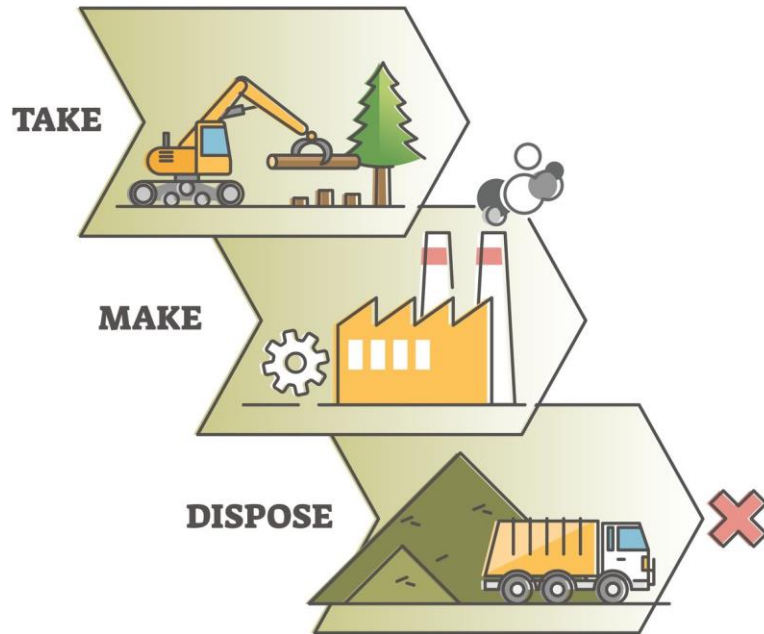


***“Problems are just opportunities that
haven’t presented themselves”***



A Take, Make, and Pollute

LINEAR ECONOMY



Circular Economic Principle 1

PRINCIPLE

1

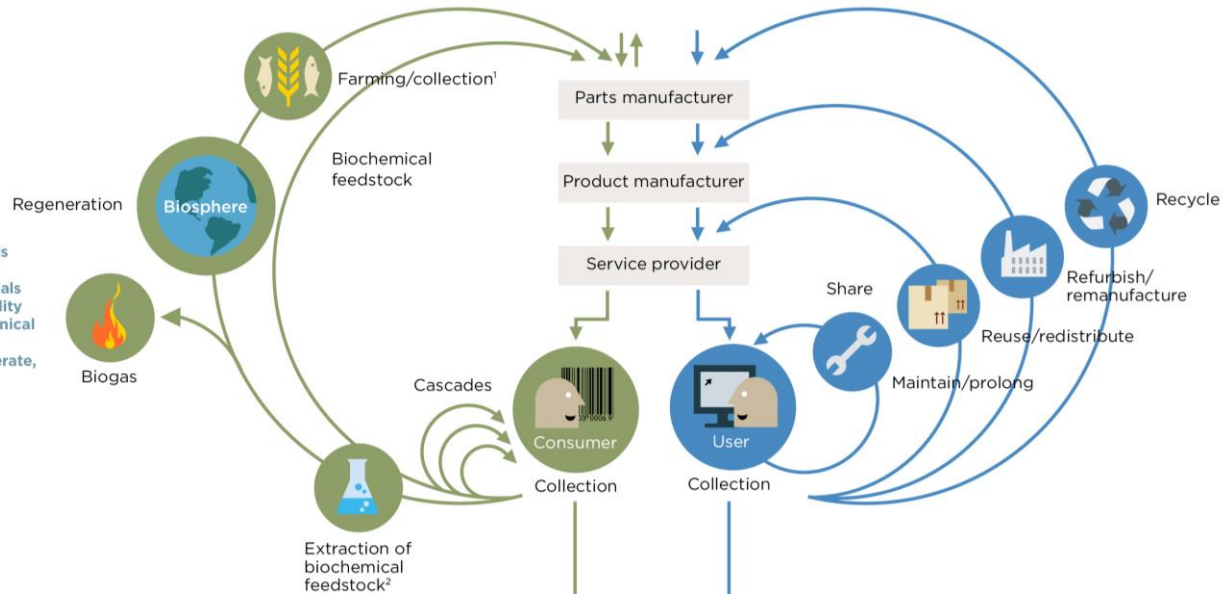
Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows
ReSOLVE levers: regenerate, virtualise, exchange



Circular Economic Principle 2

PRINCIPLE
2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles
ReSOLVE levers: regenerate, share, optimise, loop



Circular Economic Principle 3

PRINCIPLE

3

Foster system effectiveness
by revealing and designing
out negative externalities
All ReSOLVE levers



1. Hunting and fishing
2. Can take both post-harvest and post-consumer waste as an input

Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment; Drawing from Braungart & McDonough, Cradle to Cradle (C2C).

Design Solutions

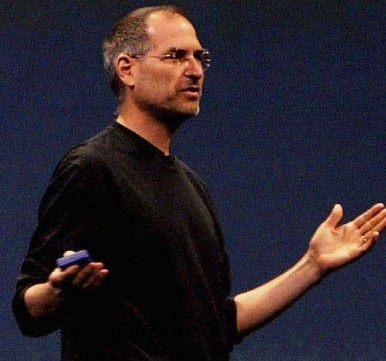
“Every product has an end of life, and from there, it’s our job to make new product out of it. That’s going to be the model going forward.” Patagonia 2021.



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More Than Just Looking Good

iTunes



Semula's Projects



In a clockwise order starting from the top left.

- Blue and white furniture set made for Foreword Coffee
- White and speckled green countertop for residential project
- Set of high stools for corporate office
- Laptop tables for corporate office
- Multi-coloured speckled countertop for local fashion brand's flagship retail store



Let's Press on!

Jeryl Yep

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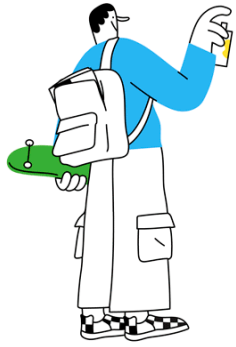
www.semula-asia.com

semula-asia

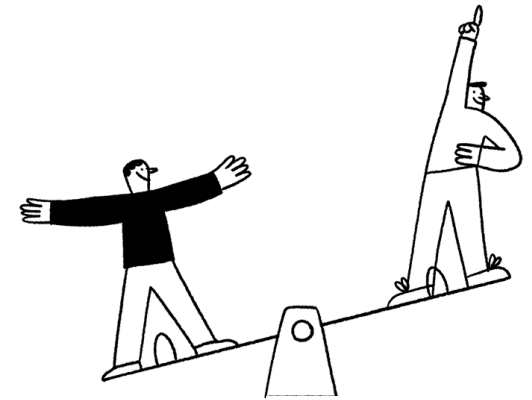
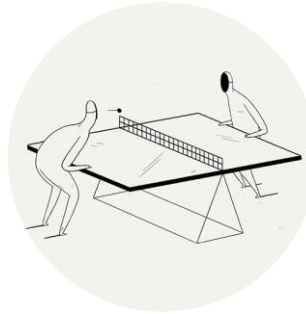
From Vision to Creation: Bringing Designs to Life

Ms Elli Wang
Chief Executive Officer
SCA Design





From Vision to Creation: Bringing Designs to Life



Singapore



Overtakes Hong Kong as Asia's top financial centre, 3rd in world. CBD's development is the key.

general way to
dispose used
furniture



GO TO GARBAGE
collection station



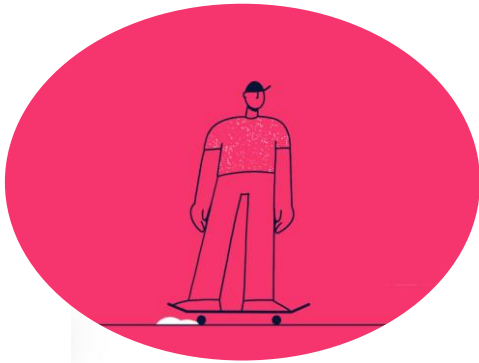
BURNING REFUSED
GARBAGE



LANDFILL
(Semakau Island)

What should WE DO ?

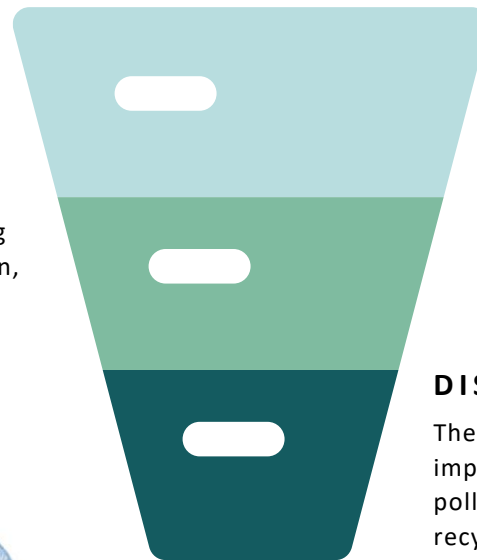
In align with government's green policy
Encourage the sustainability of environment
Reserve our home and planet



Recycle Funnel chart

REMANUFACTURE

Remanufacturing plays a significant role in reducing resource consumption, optimizing energy utilization, minimizing waste generation, and lowering carbon emissions, making positive contributions to environmental protection and sustainable development.



REUSE

Reusing is one of the most sustainable option as furniture is collected and put straight back into service.

DISASSEMBLY & RECYCLE

The disassembly and recycling process has a positive impact in reducing waste caused by resource pollution, alleviating the loss and strain on the recycling supply chain, and more.



GREAT EASTERN
USED FURNITURE RECYCLED CASE
STUDY



JOS
JOS FURNITURES PTE LTD



SINGAPORE
GREEN
BUILDING
COUNCIL
© 2017

Recycling Process

On-site Product Assessment



Item		Dimension	Qty to be reused after repair	Qty to be reused directly	Total Qty of recycled furniture
Chair		N.A.	215	206	421
Pedestal		560D x 390W x 690Hmm	-	53	53
		400D x 750W x 900Hmm	-	11	11
		560D x 390W x 690Hmm	3	8	11
		400W x 480D x 640Hmm	6	9	15
L Shape workstation	Tabletop type 1	1500W x 1500W x 600Hmm	-	33	33
	Tabletop type 2	W600 x D600mm	-	66	66
	Screen panel	W900 x H1310mm	-	132	132
	Cable tray	N.A.	51	-	51
Cluster 6 workstation	Tabletop	1440W x 610D x 750Hmm	-	6	6
	Screen panel	1440W x 1100Hmm	-	3	3
	Cable tray	N.A.	-	12	12
	Single leg	N.A.	-	8	8
Cluster 4 workstation	Tabletop	2160W X 610D	-	3	3
	Screen panel	1080W X 1100HMM	-	3	3
	Cable tray	N.A.	-	12	12
	Single leg	N.A.	-	6	6
Staff workstation	Tabletop	W900 x D600	75	-	75
	Screen panel	W1500 x H1200	68	-	68
	Cable tray	N.A.	75	-	75
Agent table type 1	Tabletop	N.A.	-	36	36
	Full Rectangular Panel	W1070 x H1300	-	18	18
	Full Curve Divider Panel	W700 x H1100*H1000	-	42	42
Agent table type 2	Tabletop	W1500 x D600	-	178	178
	Screen panel	W1500 x H1200	-	257	257

Reusing office furniture



Reuse



AFTER



AFTER

BEFORE

Reuse is an important environmental initiative that can reduce resource consumption, waste generation, and environmental pollution, contributing to the creation of a more sustainable society.

Reuse



AFTER

BEFORE

Purchasing circular furniture not only allows furniture to be reused for a second time but also provides consumers with an opportunity to contribute to the social environment. The greater value and significance lie in the chance to donate the proceeds to social groups in need.

Remanufacture

"CREATING A SECOND LIFE..."

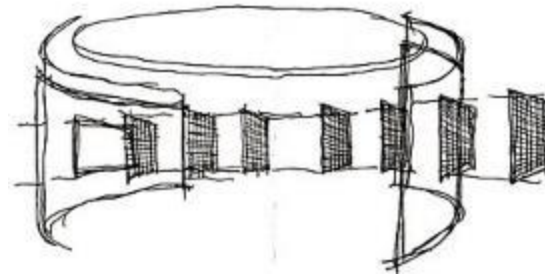


18 ROBINSON

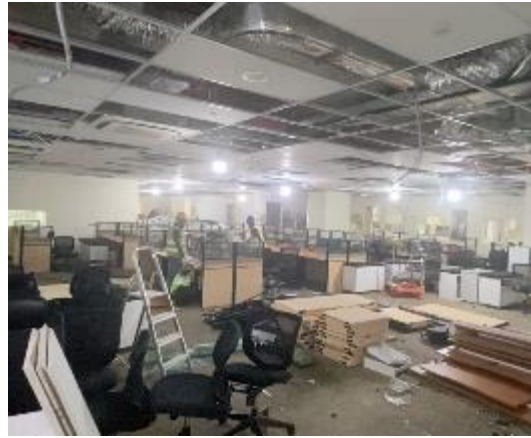
BEFORE

Redesigning a desk into a revolving door is a creative and intriguing idea that can bring a completely new ambiance and functionality to the office. At the same time, it sets a precedent for office furniture in sustainable development.

AFTER



Disassembly & Recycle



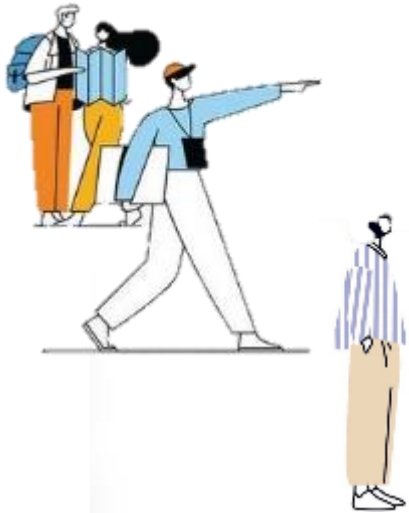
A



B



C



D



E



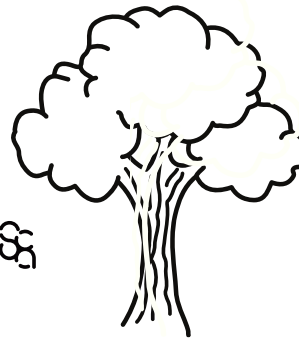
CLEAN IT FORWARD

for a better SG

Thank you for

taking care of our
environment

We care about our earth, its environment and the well being of our people. We
make workplaces sustainable, joyful and healthy.



How to Submit Your Entry?

- Step 1 *Refer to Slide 48 to 52 for the list of furniture template*
- Step 2 Design your creation using the template
- Step 3 Take a photo, scan or export your artwork to jpg/png/pdf
not exceeding 3 MB
- Step 4 Submit your artwork

[Link](#)



***Closing for Submission of Entry
Friday, 19 July 2024, 2359 hrs (SG Time)***

Competition Information Kit [Bulky Waste to Wonder\(publichygienecouncil.sg\)](https://publichygienecouncil.sg)

Date	Activity
6 May 2024	Competition Opens
29 June 2024	Design Workshop (In-Person)
19 July 2024	Closing Date for Submission
5 and 6 August 2024	Presentation pitch by shortlisted students
13 August 2024	Announcement of Finalists
19 to 23 August 2024	Consultation opportunity for Finalists
27 October 2024	Final Judging, Announcement of Winners & Prize Presentation Ceremony

New Life Community Services

Location	Intergenerational Hub at Woodlands	Jelapang Active Aging Centre (NEW)
Considerations for furniture	<ul style="list-style-type: none"> • Lightweight / easily movable • Good to have some decorations as seniors like vibrant things • No sharp edges 	
Description of some furniture needed in the different locations	<ul style="list-style-type: none"> • Storage for equipment such as guitars • Repurposing of bench outside centre for waiting purposes 	<ul style="list-style-type: none"> • Storage for any of the following: Crafts materials, Reading & pamphlets corner, Board games • Movable display structure to display seniors' crafts/art
Demographic	<ul style="list-style-type: none"> • 90% of our seniors are active and mobile • Age range: between 60-80 years old • Mostly females • Most of the seniors enjoy arts, music and activities that improve their mood 	



Furniture Template



Fixed table
Materials: Wood & Metal
Dimension:
L1200mm x W600mm x H750mm



Meeting table
Materials: Wood & Metal
Dimension:
L2400mm x W1000mm x H750mm

Furniture Template



Round table
Materials: Wood & Metal
Dimension:
Diameter 1100mm x H750mm



Metal cabinet
Materials: Metal
Dimension: D450mm x W900mm x H1100mm

Furniture Template



Mobile pedestal
Materials: Wood
Dimension: D485mm x W415mm x H630mm



Mobile pedestal
Materials: Wood
Dimension: D450mm x W410mm x H630mm

Furniture Template



High cabinet

Materials: Wood

Dimension: H2100mm x W900mm x D450



Workstation

Materials: Wooden top and Metal legs

Dimension: L2800mm x D1200mm x H750mm

Furniture Template



Long Bench
Materials: Wood & Metal
Dimension:
L800mm x W250mm x H400mm



Fixed table
Materials: Wood
Dimension:
L900mm x W600mm x H750mm