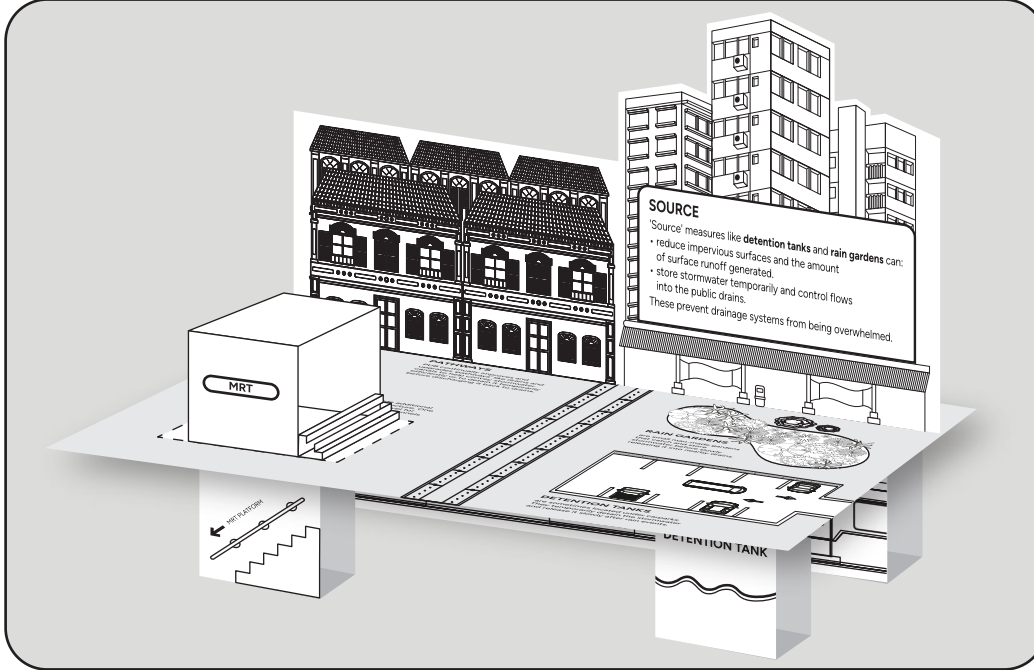


BUILD YOUR OWN FLOOD-RESILIENT CITY

As our climate changes, rainfall will become more sudden and intense. This could overwhelm our drainage system and cause flash floods. With Singapore's land constraints, it is not feasible to expand drains to cater for extreme events. As such, Singapore has adopted a 'Source-Pathway-Receptor' approach to enhance flood protection.

Create your own flood-resilient city by building and colouring it. Make it look like your own neighbourhood, or come up with something new with your imagination!



REQUIRED MATERIALS:

- Scissors
- Glue
- Colouring pencils/markers

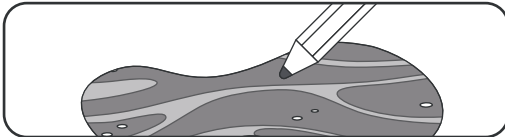
Fold mark:

Cutting line:

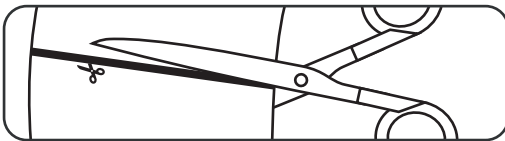
Glue area:

Glue here.

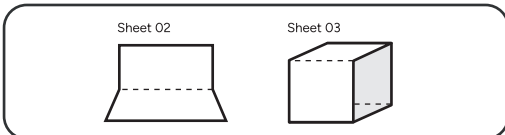
ASSEMBLY INSTRUCTIONS:



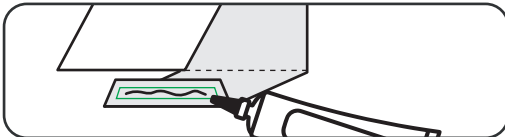
Colour your estate. Be as creative as you want!



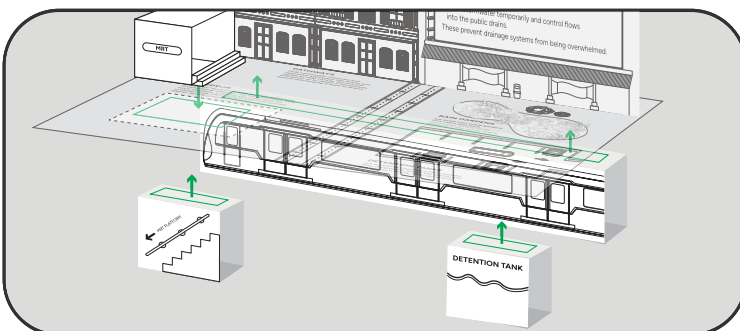
Cut along the model base on Sheet 02 and the elements on Sheet 03 using the cutting lines as a guide.



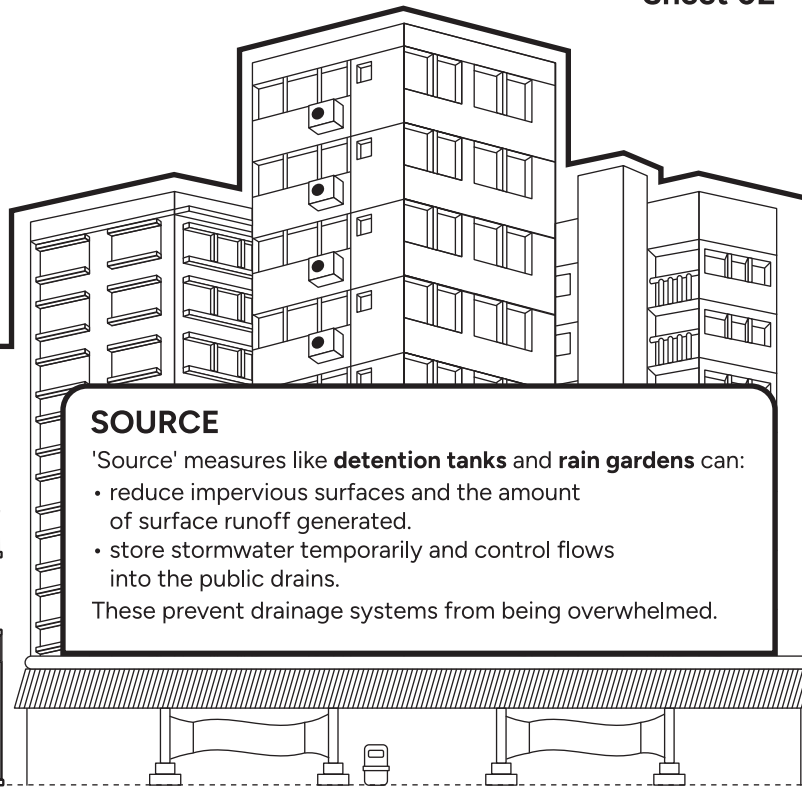
Fold along the fold marks i.e. dotted lines.



Follow the gluing instructions on the individual pieces.



Refer to this picture to glue everything together.



SOURCE

'Source' measures like **detention tanks** and **rain gardens** can:

- reduce impervious surfaces and the amount of surface runoff generated.
- store stormwater temporarily and control flows into the public drains.

These prevent drainage systems from being overwhelmed.

✂ Fold this flap behind the buildings.

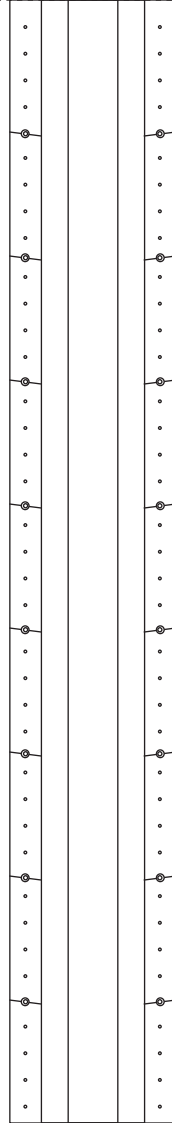
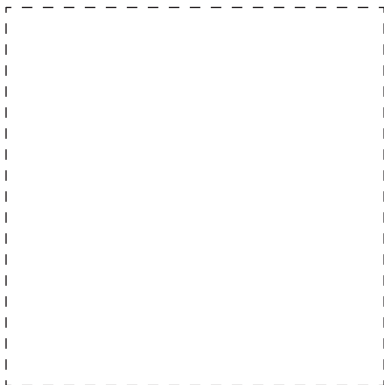
Glue here.

PATHWAYS

PUB continually improves pathways like **drains** to help convey stormwater efficiently and implements alternate solutions such as pumping stations to alleviate flooding at low-lying areas.

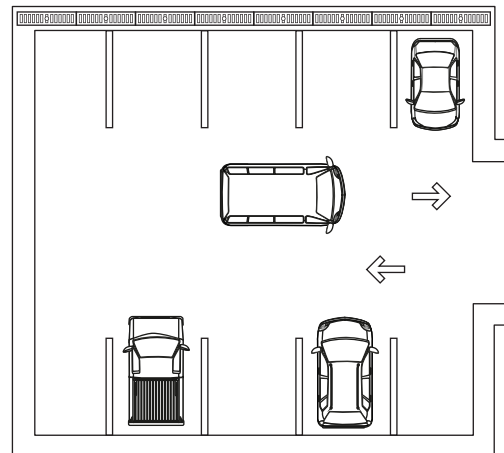
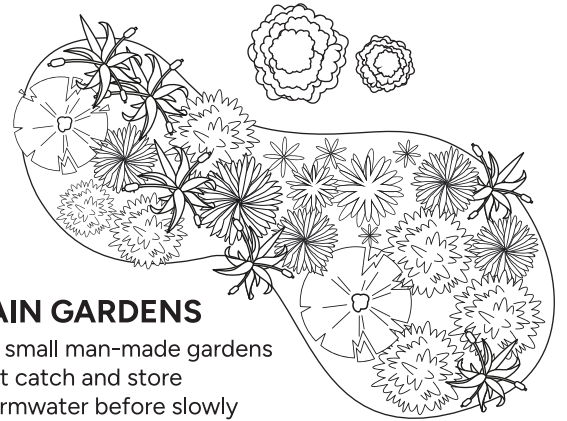
RECEPTOR

'Receptor' measures help to prevent floodwaters from entering buildings during flash floods. One such measure is building staircases at the entrance to **underground MRT stations**.



RAIN GARDENS

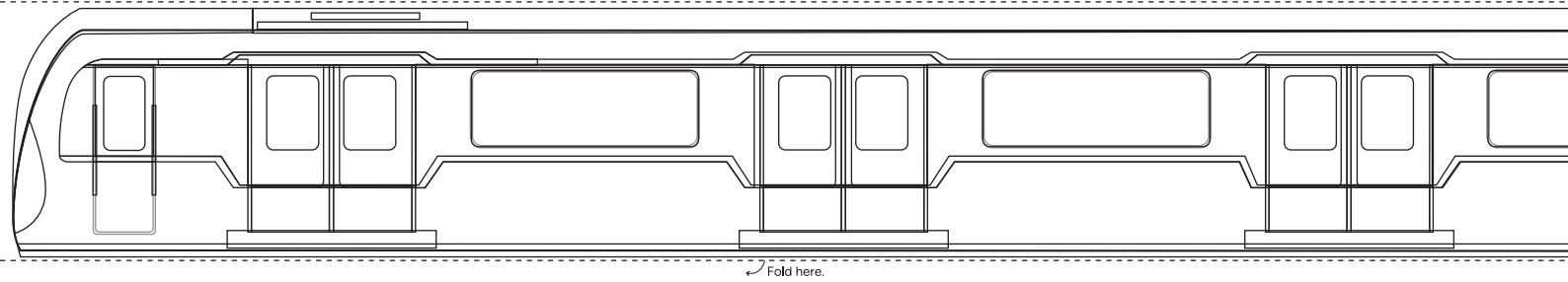
are small man-made gardens that catch and store stormwater before slowly releasing it into nearby drains.



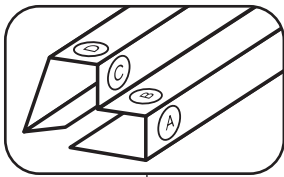
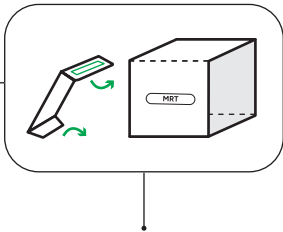
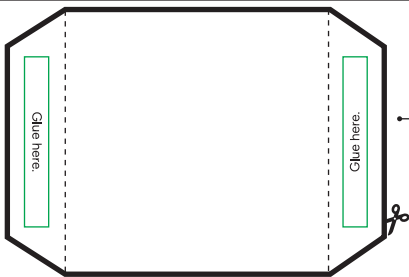
DETENTION TANKS

are sometimes located underground beneath car parks. They temporarily detain stormwater and release it via gravity or a pump after rain events.

Glue this area to the bottom of Sheet 02.



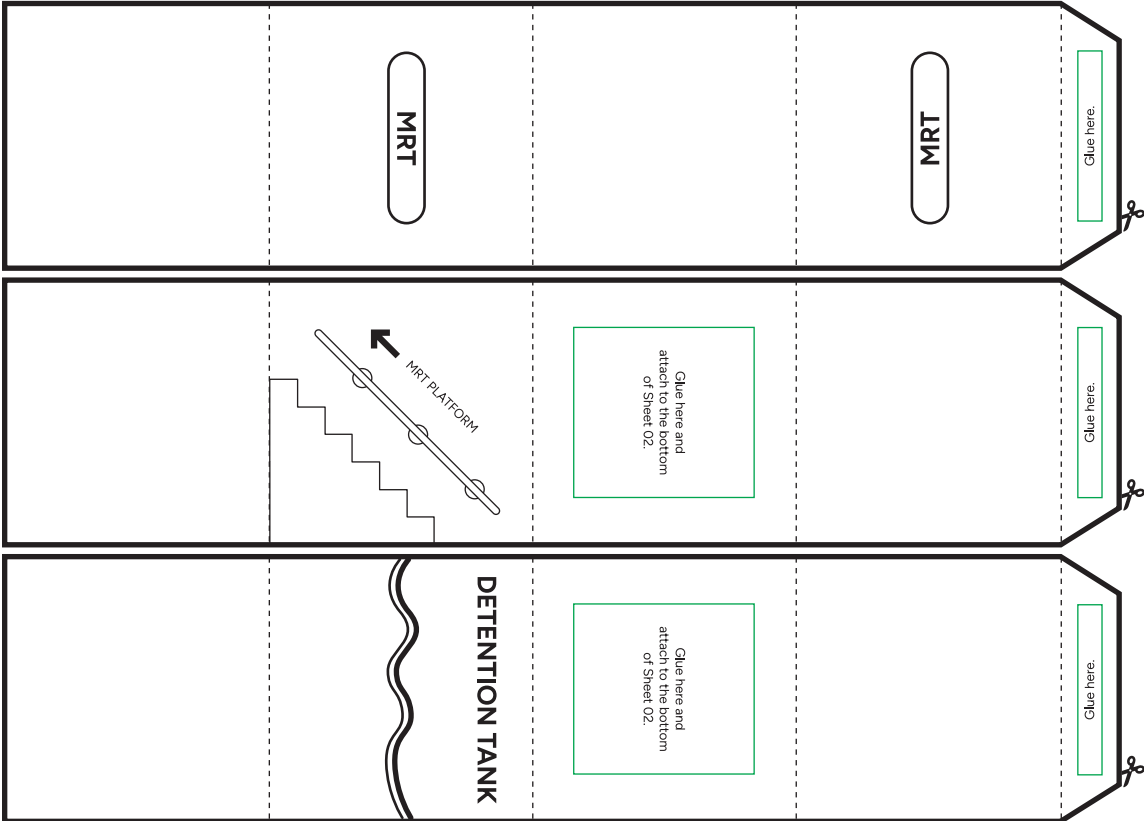
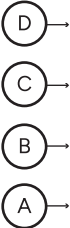
Fold here.



Glue here.

STAIRS TO MRT

Glue here to Sheet 02
in front of MRT entrance.



BUILD YOUR OWN FLOOD-RESILIENT CITY

The papercraft should look similar to these photographs.

