

THINKING SPACE

EXPLORING ARCHITECTURE AND THE BUILT ENVIRONMENT

WORKSHOP 2

Designing through model making



Today we're going to be...

SPACE

SPACE

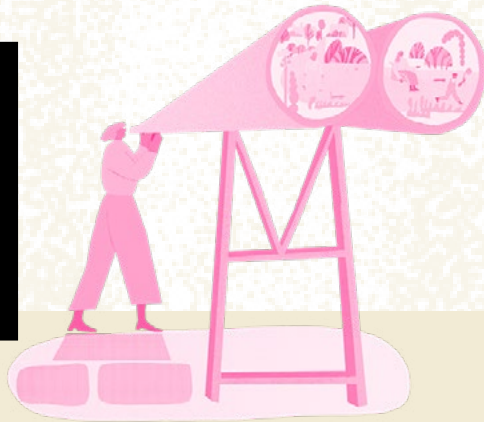


SHAPERS

SHAPERS

There are 3 lessons in this series...

1



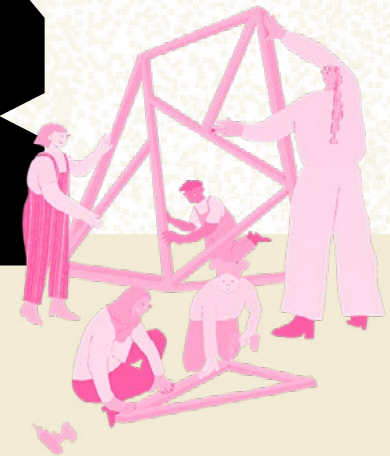
Exploring our school
and neighbourhood

2



Designing through
model making

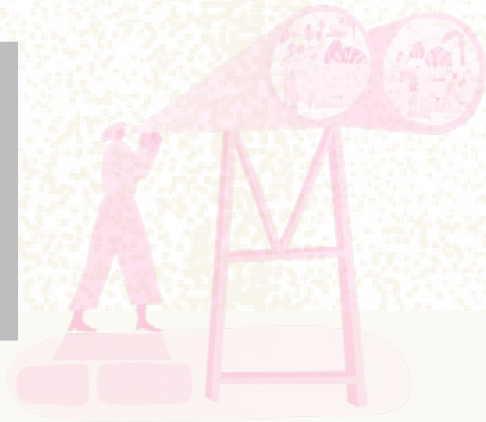
3



Big Build

What are we doing today?

1



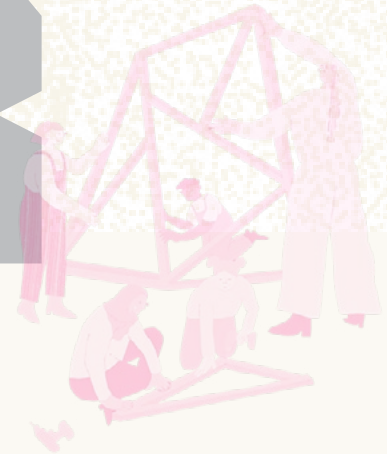
Exploring our school
and neighbourhood

2



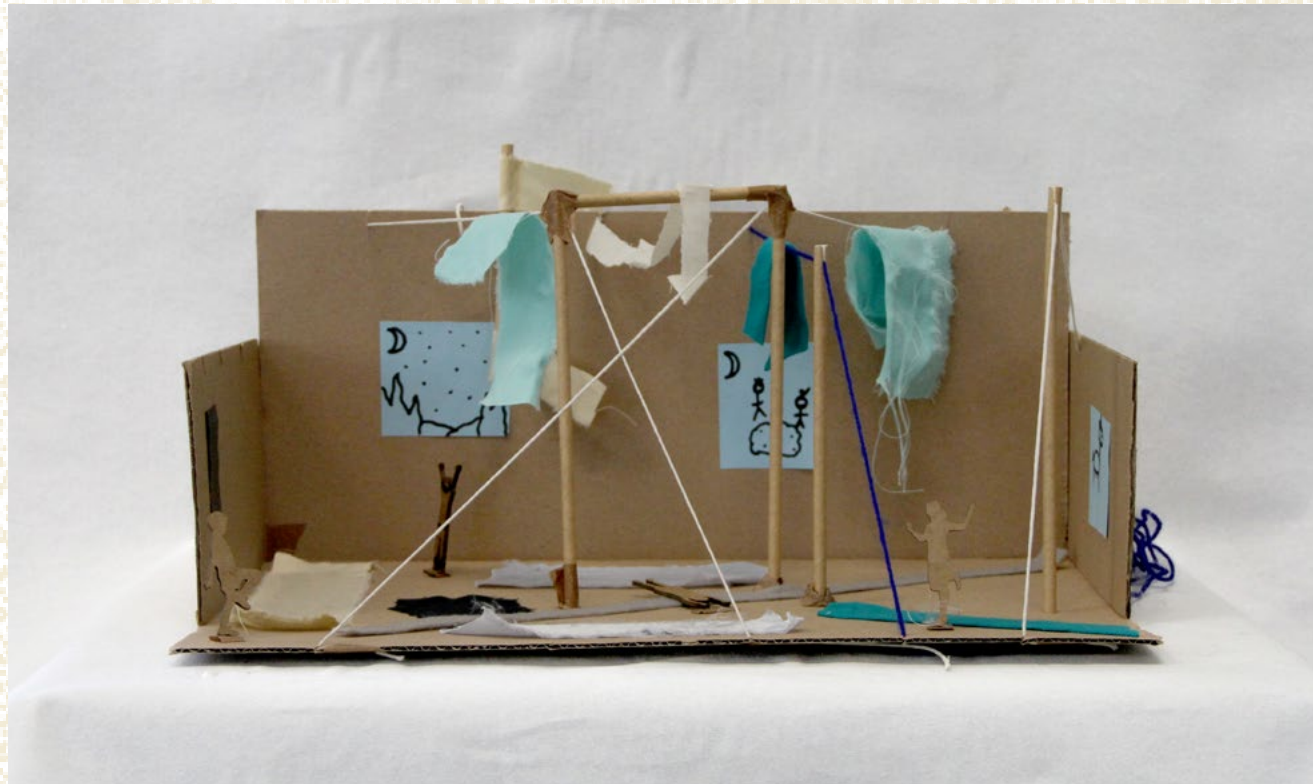
Designing through
model making

3



Big Build

Today we're going to...



create a space for belonging

LEARNING OUTCOMES



- Design a 'Space for Belonging'
- Make a 1:50 architecture model
- Learn about scale
- Explore model making techniques
- Improve our dexterity
- Practise presenting our ideas

What helps you feel like you belong?



Being with
friends

Feeling
comfortable

What helps you feel like you belong?

Sharing
interests

Being myself





Something new?

A garden

What helps you feel like you belong?

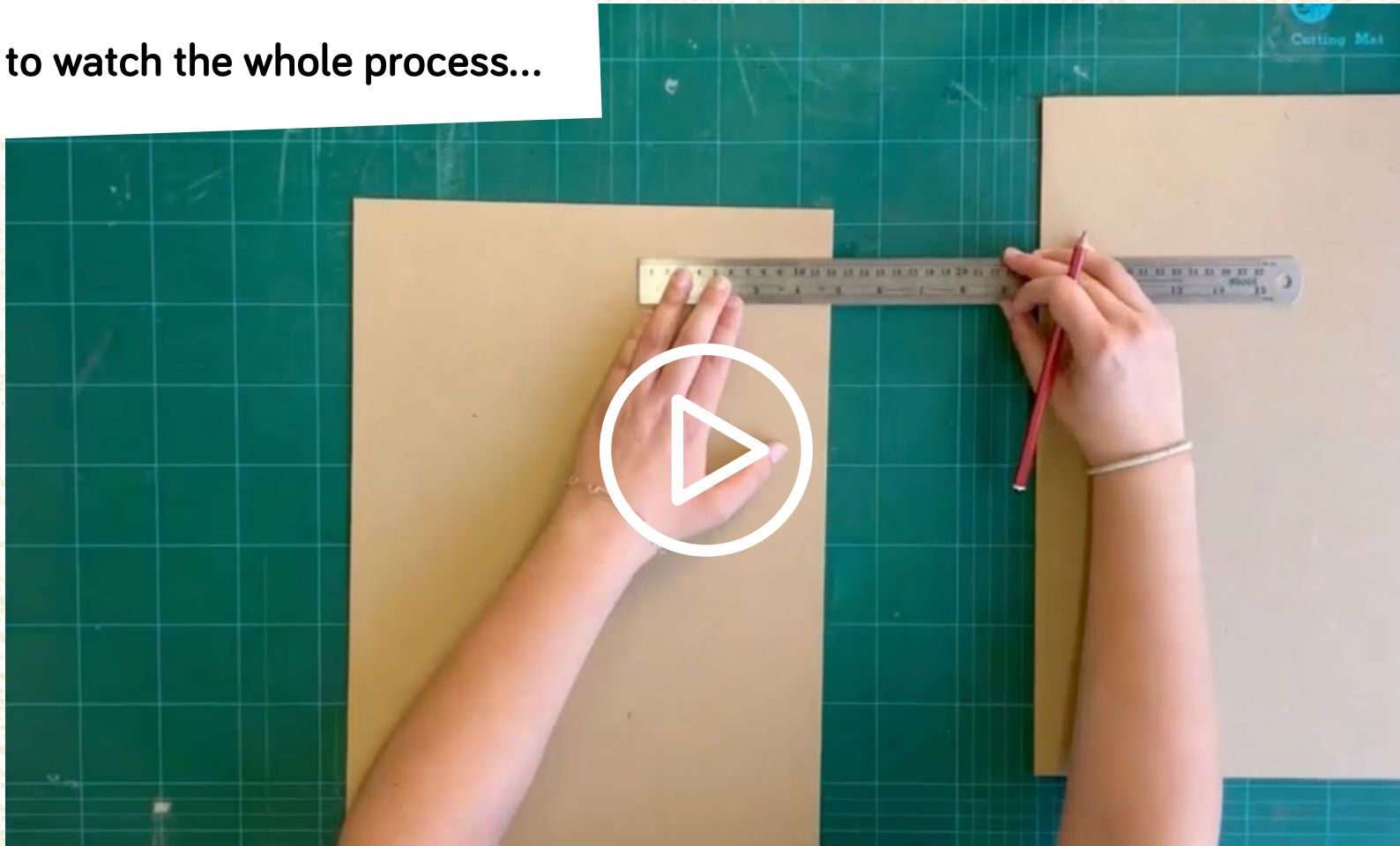
A room with
a view

A cosy
corner

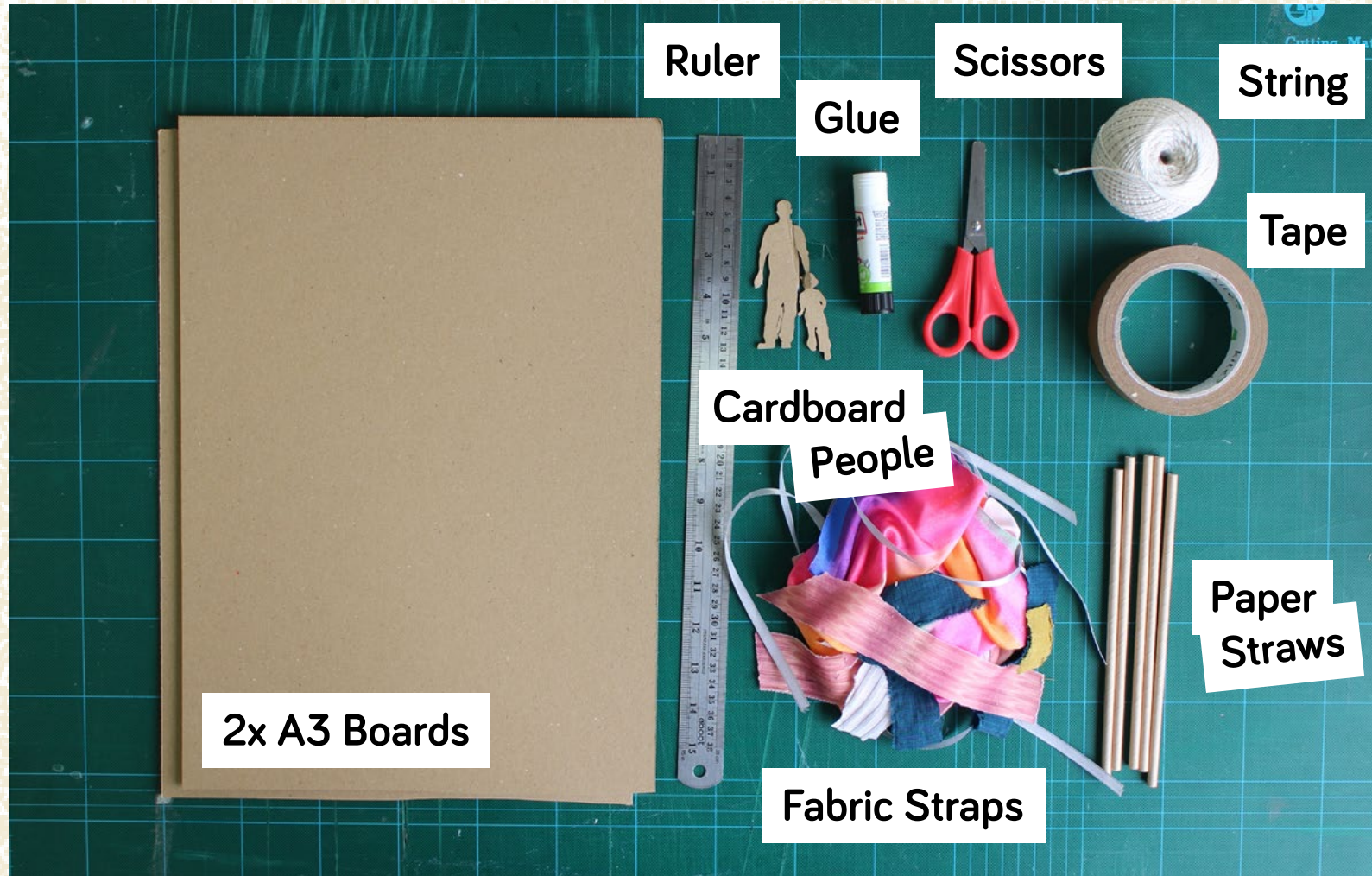


Model Making!

Click to watch the whole process...

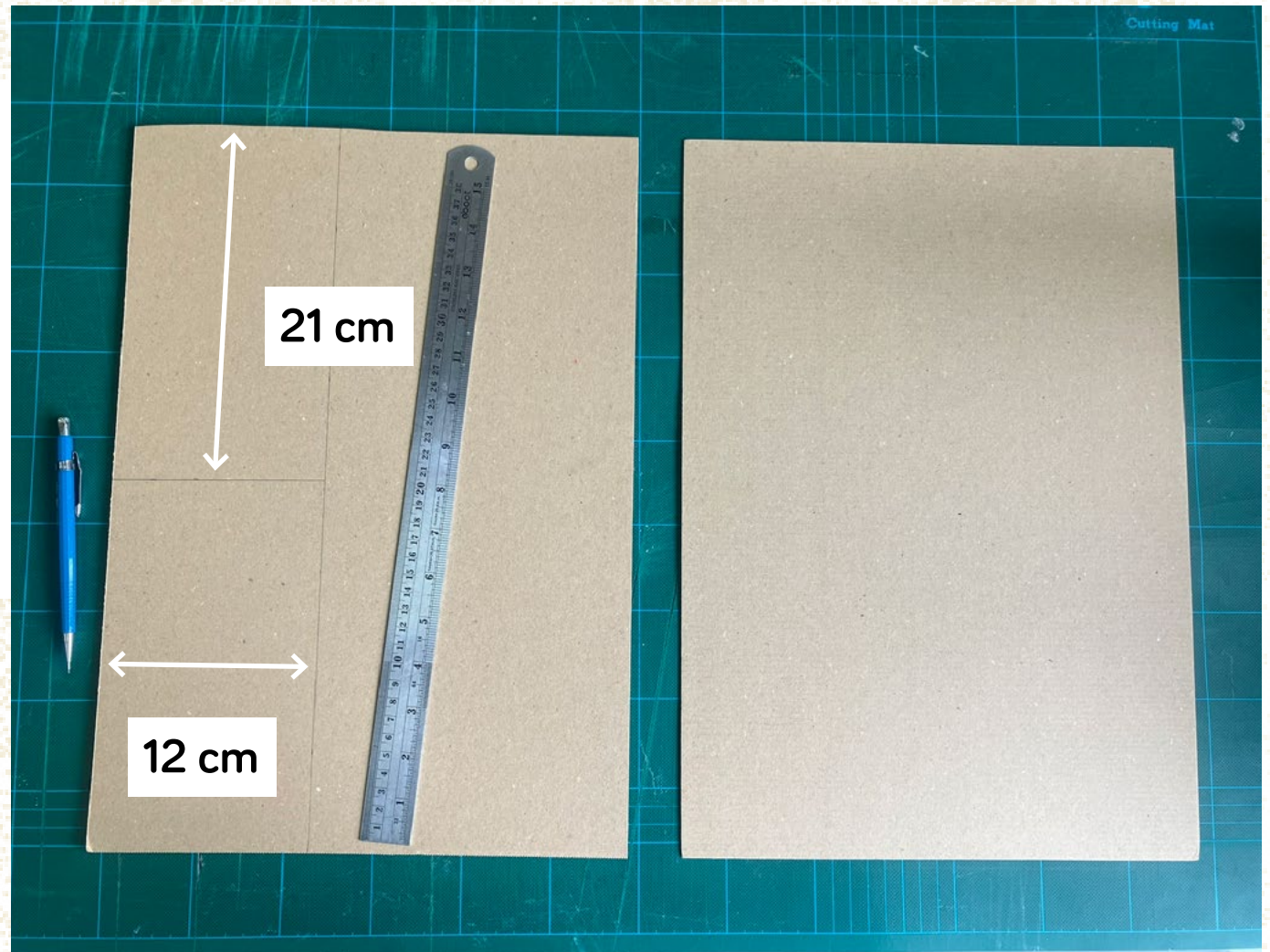


What we will need...



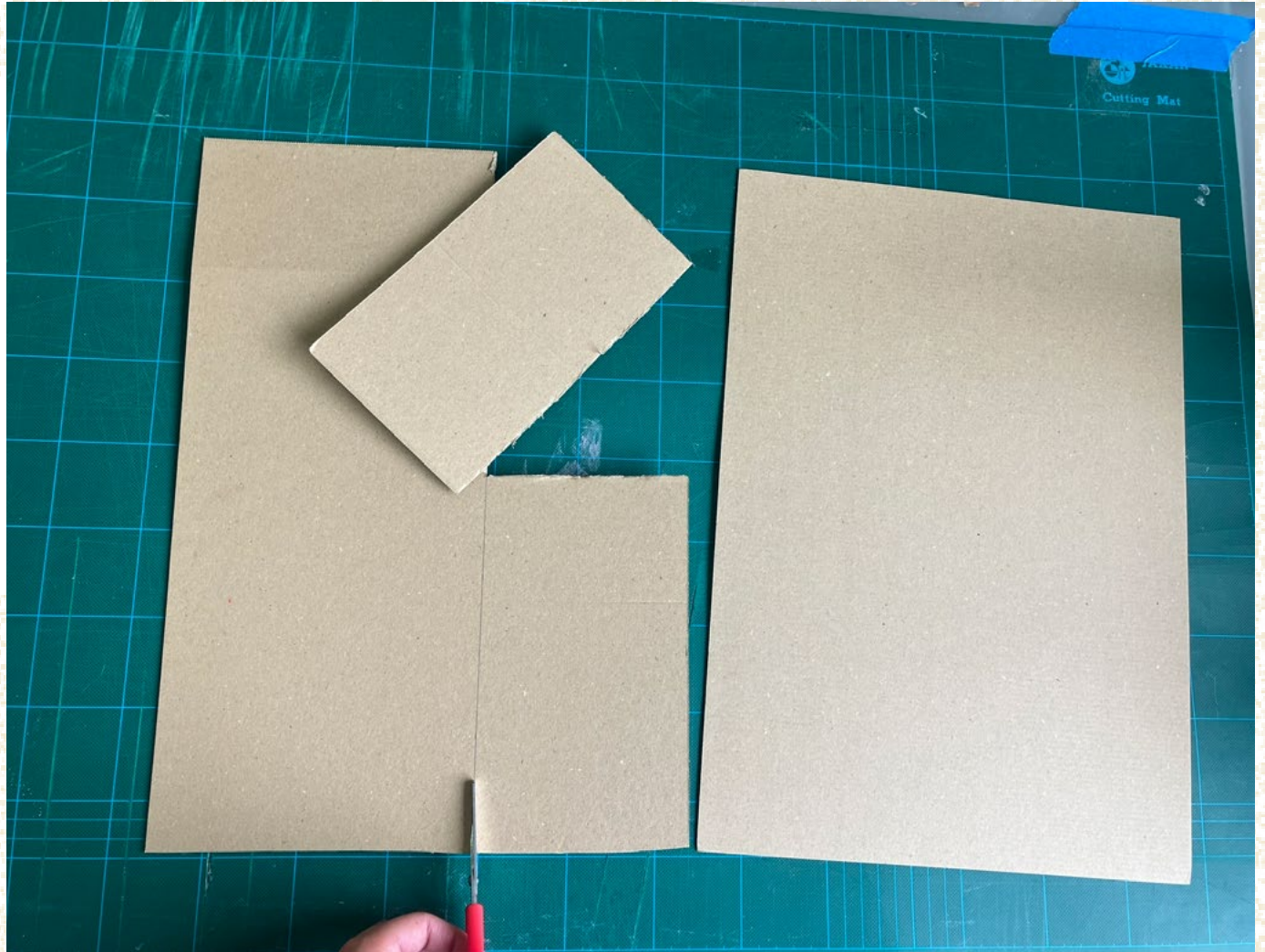
STEP 1

Measure the cardboard



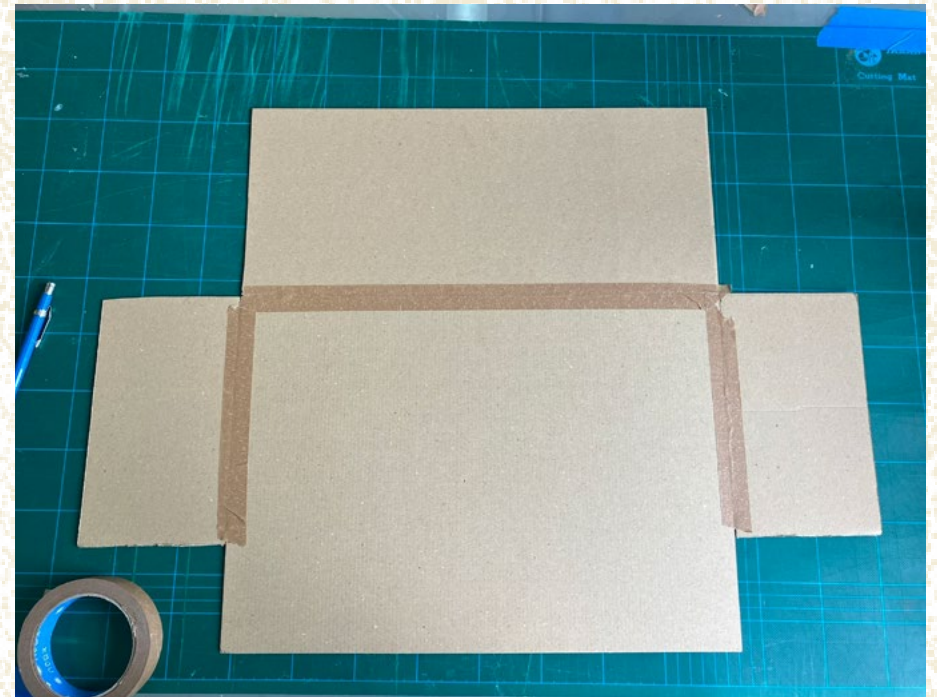
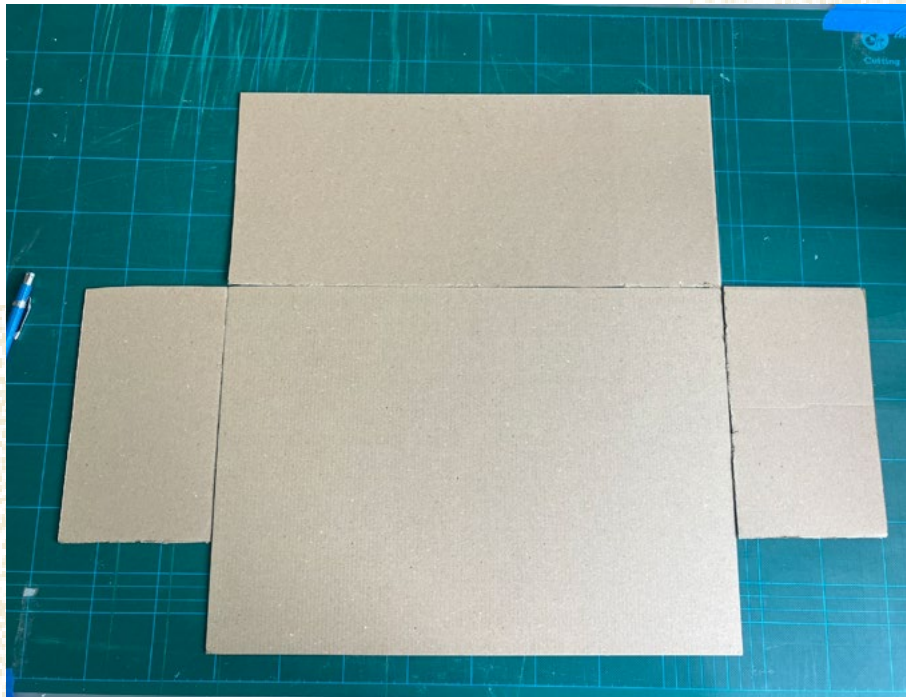
STEP 2

Cut the cardboard



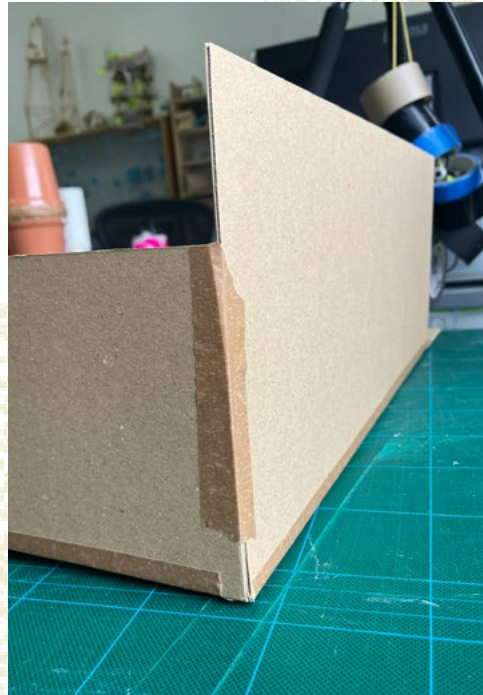
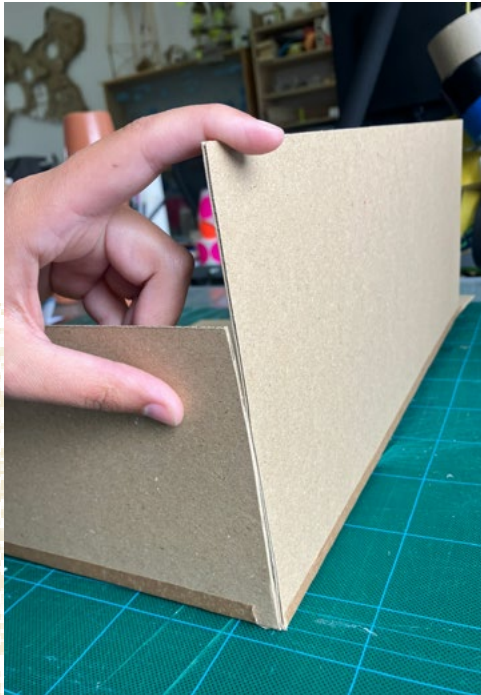
STEP 3

Lay out the base



STEP 3

Assemble the base



STEP 4

Cut slits in straws
& cardboard

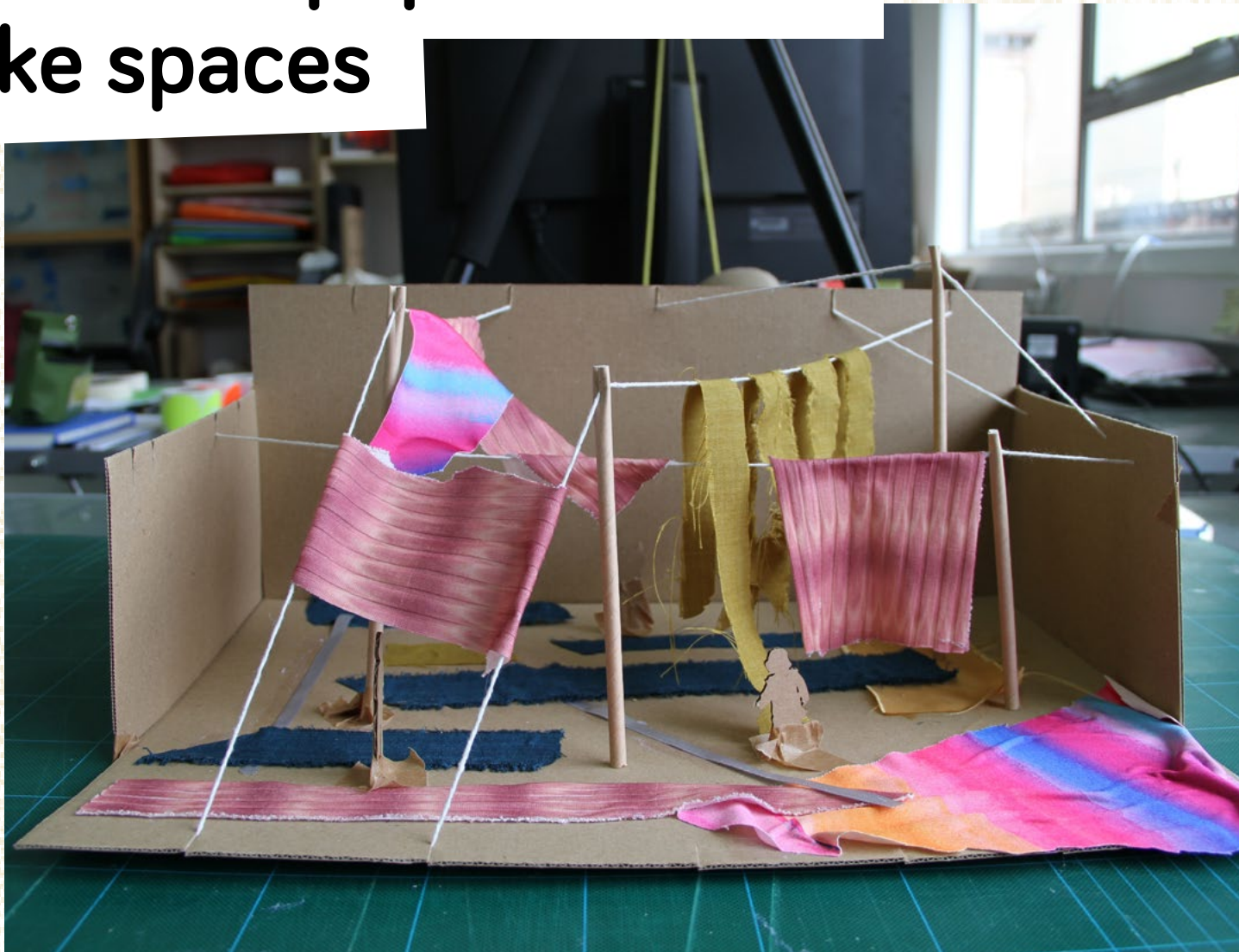


STEP 5

Add string & straws
to create supports



Add coloured paper & fabric to make spaces





Share & reflect!

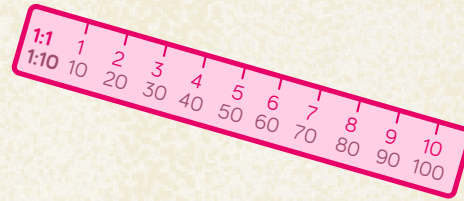
What if you want to make something different?



If you would like to make something more open-ended, the following slides will offer practical guidance and inspiration...

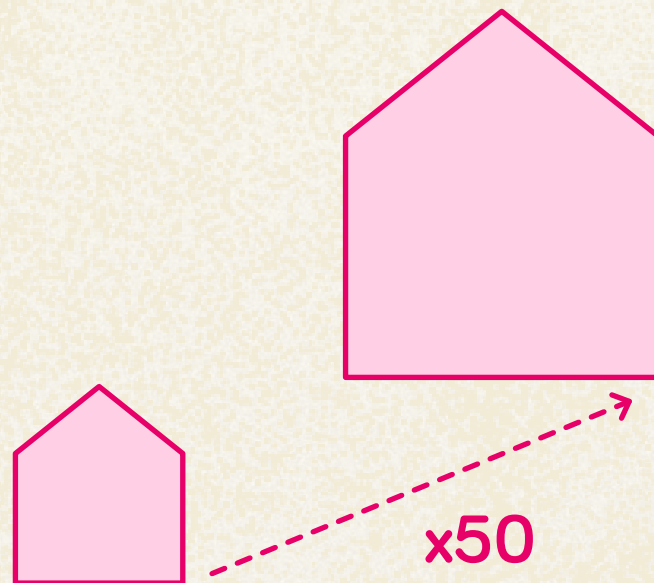
Model-Making Top Tips

Scale Model-Making



What does 'Scale' mean?

The scale of a model is its size relative to the size of the 'real' version. For example, a 1:50 scale model of a house means the real house is 50 times bigger than the model.



How to choose what scale to make your model at?

Small scale models (1:500 or 1:1000) are good for showing large areas like multiple houses or towns while big scale models (1:10 or 1:50) are good for showing details like single houses or experiences.

HINT When changing scales don't forget that units of measurement might change too! (e.g. 100cm = 1m)

MATERIALS / TOOLS

- Card
- Pen / Pencil
- Ruler
- Scale ruler [optional]

How to measure a scale model?

Scale rulers are useful tools to help when making scale models.

You can make your own using these steps:

STEP 1 Cut a long rectangle out of cardboard

STEP 2 Along one edge, draw a small line to mark out every centimetre starting from 0cm.

STEP 3 Below these centimetre measurements, write 1:10.

At this scale, 1cm = 10cm. So under each centimetre marking write x10 below.

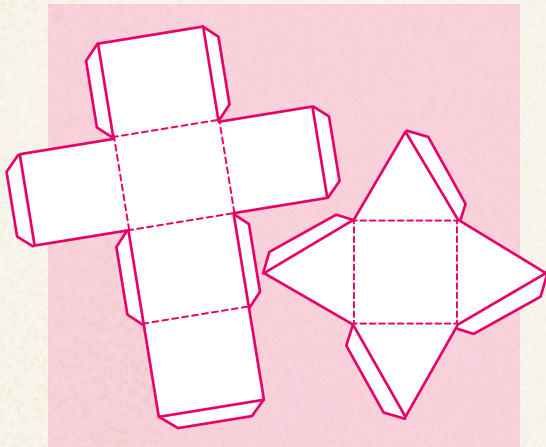
STEP 4 Continue this for different scales – 1:10 (x10) 1:50 (x50) 1:100 (x100) etc..

Modelling Exteriors

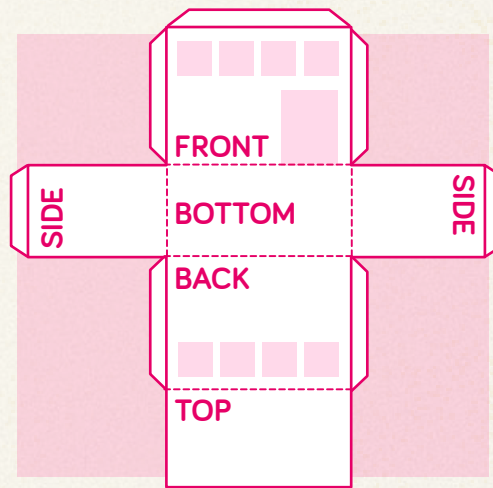
MATERIALS / TOOLS

- Paper
- Card
- Pens / Pencils
- Ruler
- Scissors
- Glue or tape
- [optional] Craft knife & cutting mat **

** This activity is age dependant. If your students' age group is suitable and you choose to use this tool, please always undertake a risk assessment and provide a full demonstration for the safe use of a craft knife and cutting mat.

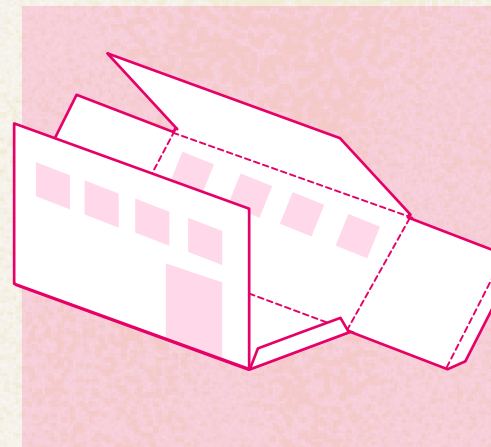


You can show what the outside of a building looks like by **making a net**. A **net** is what a 3D shape would look like if it was unfolded. They can be drawn in 2D and then cut and folded to become a 3D model.

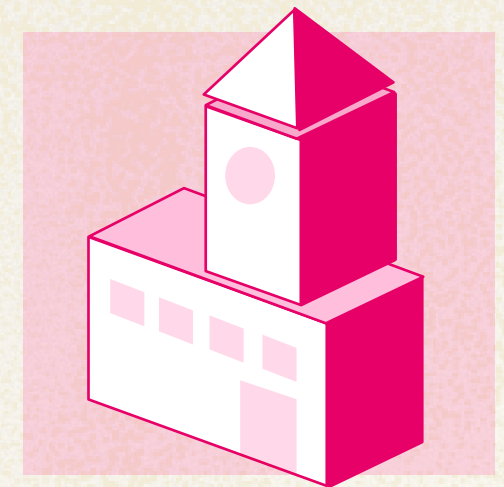


STEP 1 Draw your net onto paper or card. Cut around the whole shape. Draw details like windows and doors on to the front, back, sides or top and even cut them out at this stage.

HINT Don't forget to draw tabs on your net to stick together later!



STEP 2 Fold along the dotted lines on your net to turn the 2D shape into a 3D model.



STEP 3 Stick down the tabs using tape or glue. Continue decorating with details.

HINT You can add multiple shapes together to form more complex models (like adding cube and a pyramid to form a traditional house + roof shape)

Modelling Interiors

MATERIALS / TOOLS

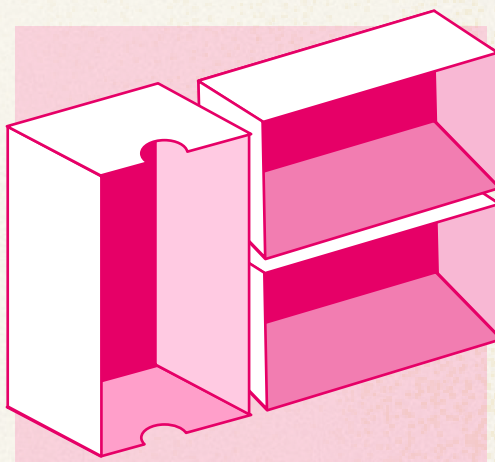
- Paper
- Card
- Foamboard
- Clay
- Pens / Pencils
- Ruler
- Scissors
- Glue
- Tape
- [optional] Craft knife & cutting mat **

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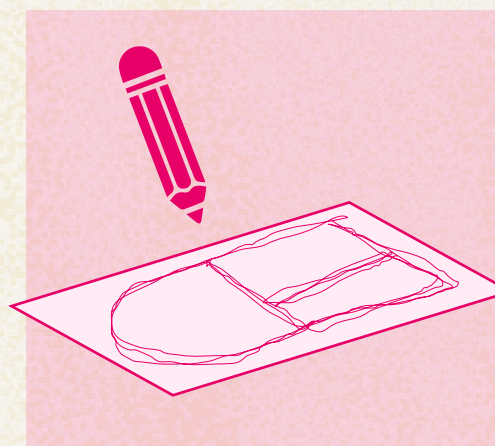
The inside of a building is also called the 'interior'. You can show the interior by making walls, floor and ceiling and then adding details inside.

HINT Imagine you are making the inside of a doll's house!



OPTION 1 Shoebox

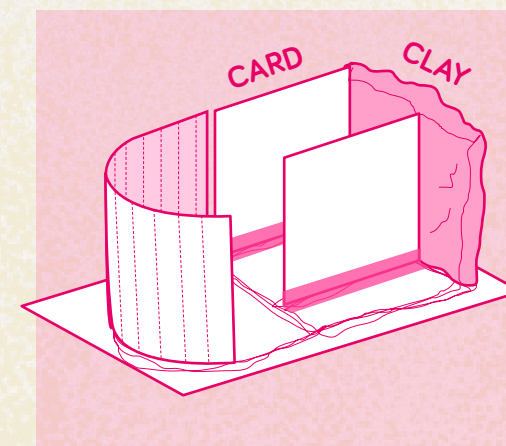
Turn a recycled shoebox onto its side, so the open end is facing the front. Students can decorate the inside of the shoeboxes to show interiors, activities inside buildings, and users.



OPTION 2 Making walls

Using cardboard, foamboard or clay, you can make walls of a room, space or building.

Start by marking out your floor area using a piece of card. Draw lines to show where your walls will go.



Then, if using cardboard or foamboard, cut out your wall shape and use tape to stick down to the floor.

If using clay, simply roll out your wall shape and press it down onto the floor card.

HINT To make curved walls, gently score vertical lines into the card before sticking down, or roll up the card into a tube to help it become flexible!

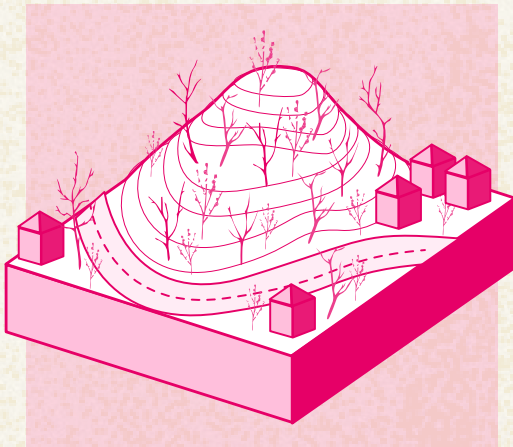
Modelling Landscapes

MATERIALS / TOOLS

- Paper
- Card
- Foamboard
- Twigs / Branches
- Pens / Pencils
- Lego / Toy figures
- Ruler
- Scissors
- Glue
- Glue gun *
- [optional] Craft knife & cutting mat **

* This activity is age dependant. If your students' age group is suitable and you choose to use this tool, please always undertake a risk assessment and provide a full demonstration for the safe use of a glue gun.

** This activity is age dependant. If your students' age group is suitable and you choose to use this tool, please always undertake a risk assessment and provide a full demonstration for the safe use of a craft knife and cutting mat.

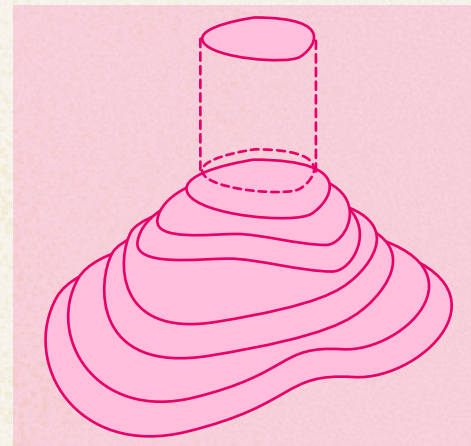


The landscape can be very important in a town, and is equally important in architectural models. This can help us see the parks, trees, hills or other natural features. It can also help to show public spaces and transport links like roads or walkways between buildings.



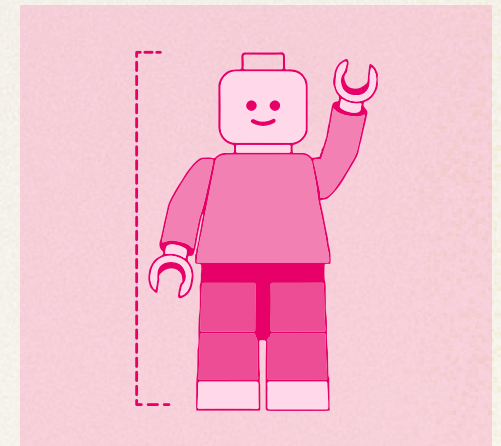
How to make scale trees

Using parts of real trees is a great way to show small scale trees. Collect small twigs from bushes or trees around your school and stick down using a glue gun.



How to make scale hills

Use layers of cardboard to make hills or slopes in the landscape. Simply cut a curvy shape out of card and stick down to base. Then cut out a slightly smaller curvy shape and stick on top. Continue cutting and sticking shapes onto each other to form a hill.



How to add scale people

You can use Lego people or toys to show how people use your town or building model.

You can also print and cut out people to match the scale of your model.

HINT Lego people are about 1:25 scale of a real person!

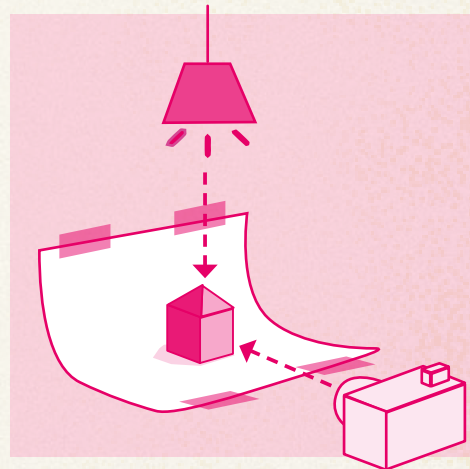
Photographing Models

MATERIALS / TOOLS

- Large paper (any colour of your choosing)
- Masking tape
- Camera
- Light source
- Computer



Photographing models is an important skill when designing (almost as important as the model!) as this can help to communicate the ideas in your model further.



STEP 1 Set up your background

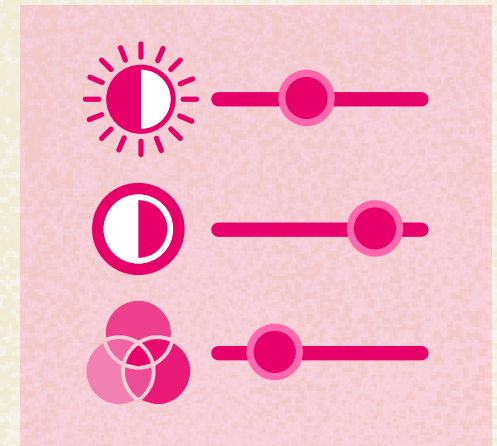
Use a clean, blank sheet of large paper as a background. You can drape it over chairs, tables or walls, and use masking tape to stick it in place.

HINT Make sure you set up background in a place with good lighting. Either directly below a light, outside on a sunny day, or by a sunny window.



STEP 2 Set up your camera

You can use any camera, digital or film or even your phone to take photos. You might want a friend to help hold the camera steady, or use a tripod to keep it still. Make sure your model is in focus and centred.



STEP 3 Editing Photos

You can edit digital photos using your phone camera settings or on the computer. Experiment with brightness, contrast and saturation for your desired outcome.

We'd love to see your creations!

Please share what you've made with us at:

✉ info@mattandfiona.org

📷 [@matt_and_fiona](https://www.instagram.com/matt_and_fiona)

🌐 [@matt-fiona](https://www.linkedin.com/company/matt-fiona)

For more inspiration or a workshop happening near you, please check out **www.mattandfiona.org**



Thanks for taking part, we hope you enjoyed the workshop

Finally, a big thank you to the school students who helped us to develop these workshops:

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- St Andrew's C of E Primary School, Islington
- West Heslerton C of E Primary School, North Yorkshire

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