

Use a table like this to plan out your housing so you know how many to make. Remember we need new homes for about **2,000 people!**



**NUMBER OF PEOPLE =
CAPACITY of UNIT X NUMBER of UNITS**

UNIT TYPE	CAPACITY of UNIT	No. of UNITS	No. of PEOPLE
Large House	6 People		
Housing Block	120 People		
Row of Small Houses	50 People		

TOTAL:

Homes

A



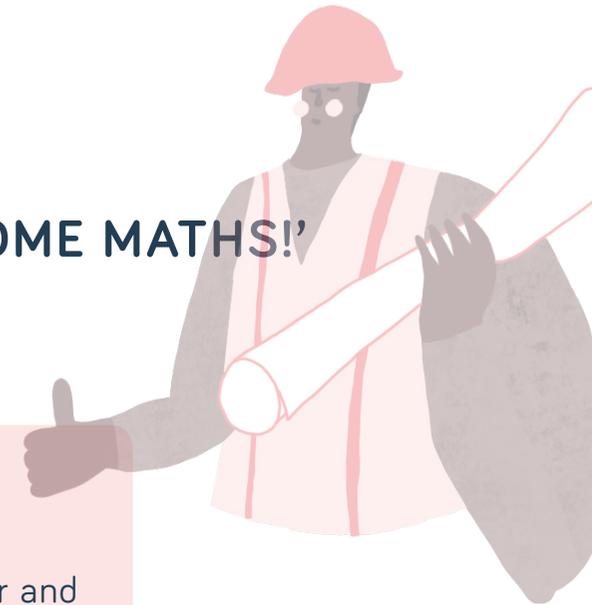
_ACTIVITY BOOK
RIBA KS3 | Mathematics

'LET'S DO SOME MATHS!'

ACTIVITY /

Today you are going to help Sophie and Tomas design a Housing Plan for Towncaster and will make a big model of the town and its buildings.

Your teacher will organise you into groups of 4 or 5.



First **check** that you have the right materials.
Your group should have:



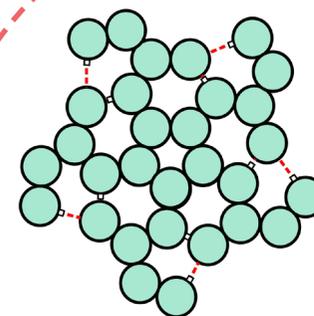
MATERIAL	SIZE	QUANTITY
1:1000 Plan of Towncaster	A4	1
Large sheet of strong paper	A0	1
Scissors		4/5
Pens		6
Rulers	30cm	4/5
Transparent sticky tape on dispenser		2
Sheets of coloured paper	A4	30
Plain Paper	A4	10
Coloured Card	A4	30

STEP 5 /

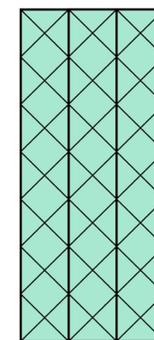


“See if you can work out how to make the building and structures from the different nets. Here are some examples of the nets your teacher will provide you to cut out and make.”

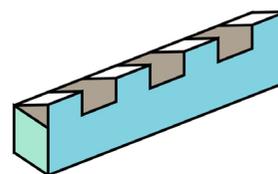
“Now you need to plan the housing schemes. You have been provided with three types of housing unit.”



Net for a dome!



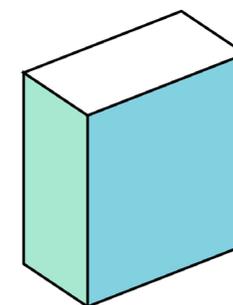
Net for a truss bridge!



Row of small houses

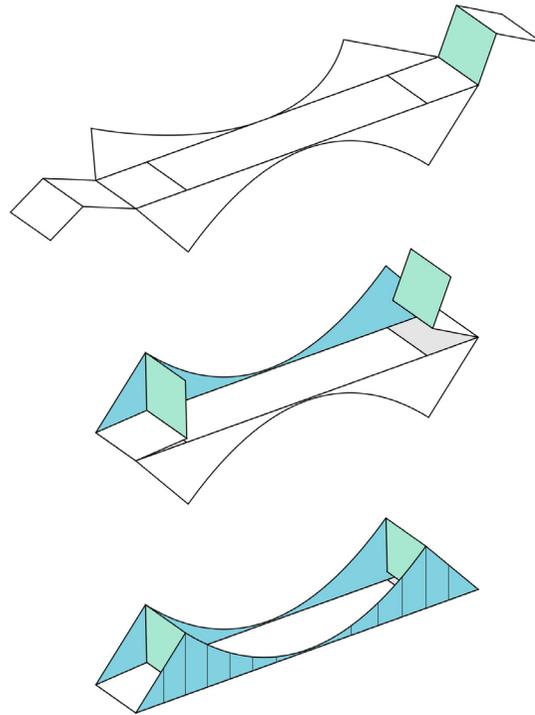
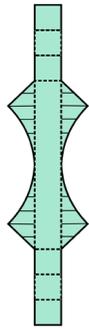
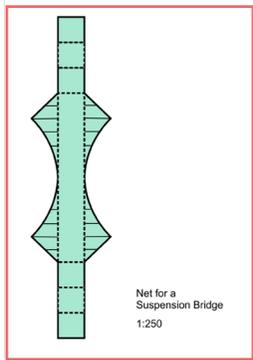


Large house



Housing block

STEP 4 /



“Some of your team can start to make Towncaster’s structures and buildings. Your teacher will provide you with a set of nets which are shapes printed onto paper or card. You will need to carefully cut out each net and fold the shape along the dotted lines to form each building and structure. Use sticky tape to fix them together.

First of all are nets for Towncaster’s big buildings and structures. Here is an example for a type of bridge called a suspension bridge.”

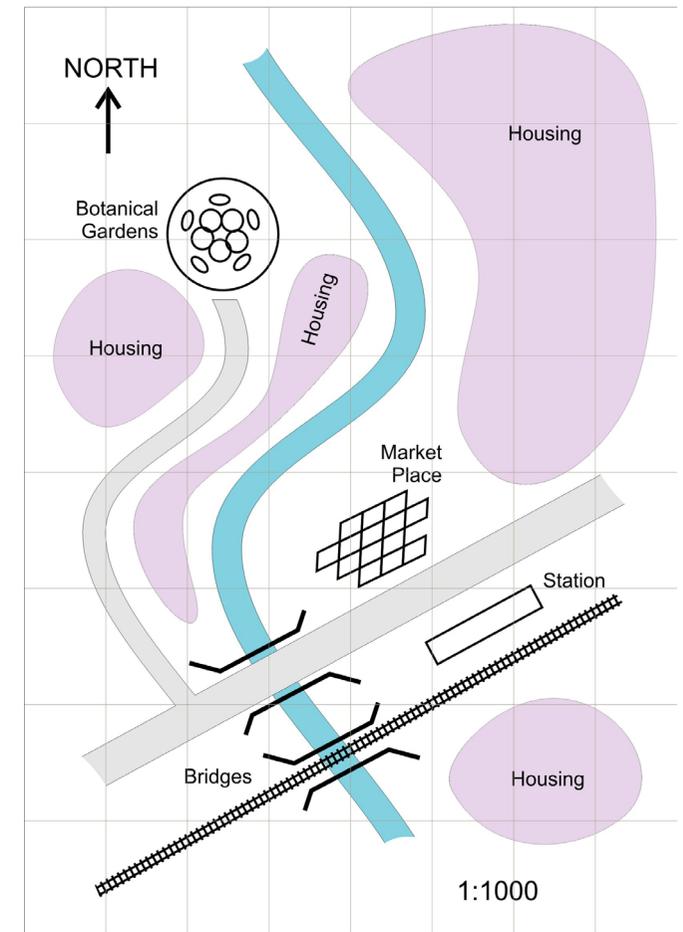
Fold the net along the dotted line to make the bridge!



STEP 1 /



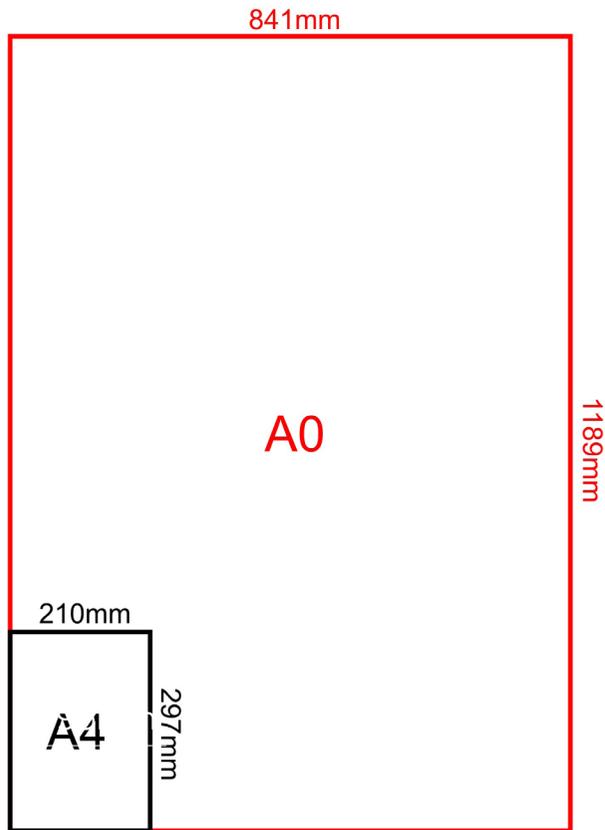
“Your teacher will give you a plan of Towncaster on an A4 sheet of paper.”



Scale 1:1000

STEP 2 /

“Copy this on to the very large sheet of paper your teacher will give you, and make it four times bigger. This means it will now be at a scale of 1:250.”



STEP 3 /

“You can do this by carefully measuring with a ruler or by using your ruler to draw out a grid.”



Using the pens, coloured paper scissors and sticky tape, some of your group can work together to make the plan.”

