

Building and Using a Geoboard! Part 1

A geoboard is a mathematical tool for exploring and investigating a variety of topics such as shapes, space and symmetry.

Create your own Geoboard!

Things needed:

1 board of very thick cardboard (or wooden board)
(size approximately 30 cm x 30 cm)

1 packet push pins (you can use small nails if you're using a wooden board)

graph paper big enough to cover board

1 packet rubber bands (variety of sizes)

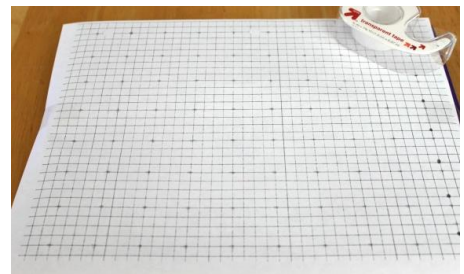
small hammer

Note to guardians

As always, provide supervision to your child/ren with this and any activity where certain tools and resources are used. Use your judgement when doing such activities with your child/ren.

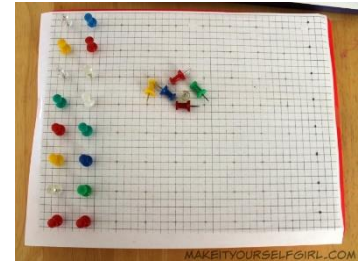
Method:

- a) Cut the card/wooden board to the size you want it. The larger the geoboard is the more pushpins you need.
- b) Lay the graph paper on the board and stick it so that it will not move.



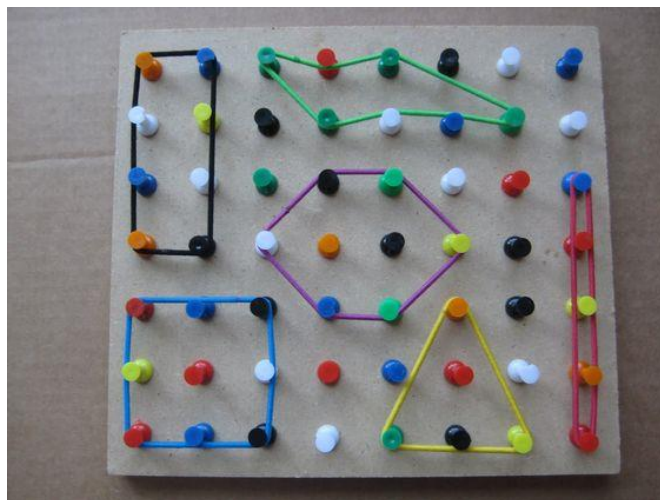
c) Mark where you want your pins to go. Make sure the spaces between pushpins are the same.

d) Lightly hammer the pushpins where your marks are. Do not hammer all the way down.



e) Carefully start from one corner and rip in the graph to pull it off one bit at a time. Make sure no pins come off.

f) Once all the graph paper is off, hammer in the pins to the board. Make sure to get them in straight!



Note: If you don't have the resources or time to make a geoboard you can find free geoboard apps online.

<https://www.mathlearningcenter.org/resources/apps/geoboard>

<https://toytheater.com/geoboard/>

<https://www.roomrecess.com/Tools/Geoboard/play.html>

TASK 1 Exploring Geoboards

Try out your geoboard or the Geoboard app online.

TASK 2 Squares

Without overlapping shapes, how many different squares can you make on your geoboard?

Describe 'squares'.

TASK 3 Rectangles

Without overlapping shapes, how many different rectangles can you make on your geoboard?

Can you make more/less rectangles on your geoboard?

Why do you think this is?

TASK 4

Create a picture on your geoboard using different shapes.

Describe your picture and the shapes you used.

How many squares did you use?

How many rectangles did you use?