



Numicon

A guide for Parents/Carers

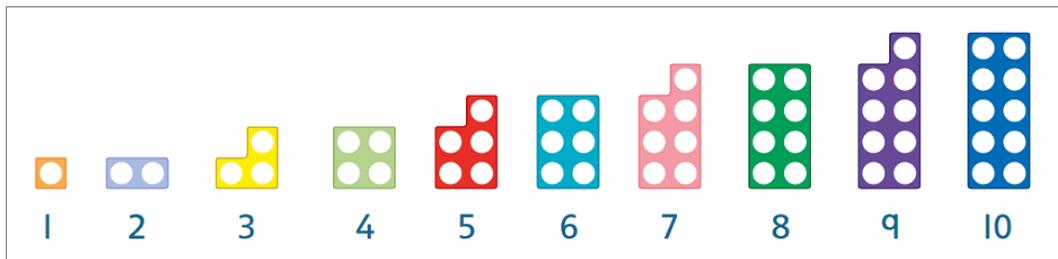
What is Numicon?

Numicon is an approach to teaching maths that helps your child to see connections between numbers. It supports your child as they learn early maths skills in nursery and primary school. It is a **multi-sensory** way of learning, which means your child learns by seeing and feeling.

Physical resources like the colourful **Numicon Shapes** are an important part of Numicon. The holes in the Numicon Shapes represent the numbers 1 to 10.



When they are arranged in order, as in the picture below, children can easily see connections between numbers, such as 'one more' or 'one less'.



Later on, your child will be able to see more **complex mathematical ideas**, like how two fours make eight, three twos make six, and so on. This lays the foundation for their understanding of number all the way through school.



Using Numicon at home

There are lots of ways you can help your child learn with Numicon at home.

Children's early experiences of maths at home have a huge impact on their later achievement.

If you don't have Numicon shapes at home, you can print and cut out the shapes and baseboard from the back of this booklet.

These can also be downloaded from links here -

<https://home.oxfordowl.co.uk/maths/numicon-guide-for-parents/>

There are also Numicon Videos on YouTube for support and ideas.

Acknowledgements

Ideas and images for this booklet have been taken from the following sources

- <https://home.oxfordowl.co.uk/maths/numicon-guide-for-parents/>
- <https://www.broomhill-inf.bristol.sch.uk/wp-content/uploads/2019/07/Numicon-Parent-Guide.pdf>
- <https://kidadl.com/articles/numicon-guide-for-eyfs-parents>
- <https://www.churchlangton.leics.sch.uk/wp-content/uploads/2016/07/Numicon-guide-for-parents.pdf>
- <https://www.coppice.worcs.sch.uk/assets/Documents/curric-eyfsnumicon.pdf>
- <https://inspiremyplay.com/6-easy-ways-play-with-numicon-home/>



Numicon Activity Ideas with paper/card or plastic shapes

Numicon staircase



Can you lay out the Numicon pieces to create a staircase?

Ask your child to cover their eyes. Remove one or two pieces of Numicon.

Ask your child if they can spot which piece is missing. Ask them to explain how they know?

Snap

Photocopy the cards so that you have 2 or 3 sets and play snap with them.

Once you've said snap though the player must name the Numicon shown in order to keep them e.g., does the Numicon represent 5, 6, 7 etc?

Dice

Match the number thrown to the Numicon piece?



How many altogether? Who has more/less?



Berries

Ask your child to pick the right amount of berries to place into the holes of selected Numicon shapes. If you have a selection such as blueberries, raspberries and blackberries, ask them to use a different variety of berry for each of the shapes.

Marbles

How many marbles can you place in each Numicon piece? Challenge your child to take a handful of marbles and get them to find which Numicon piece they will fit into exactly.

Treasure Hunt

Place the cards around the room, in the sand pit or around the garden and challenge your child to find the Numicon with 5 holes.

Once found, challenge them to find the Numicon with 2 holes and so on.

Alternately place the cards and then challenge them to see how many you can both find. Once you have all 10 come back together and name which Numicon you have.

To extend this even further, 'who has the most?' Count up how much your Numicon cards add up to and the player whose cards add up to the most, wins.

Scavenger hunt

Place the Numicon shapes around a smallish area and ask your child to find them in the correct order.



Money

How many pennies would cover the holes of the Numicon piece?



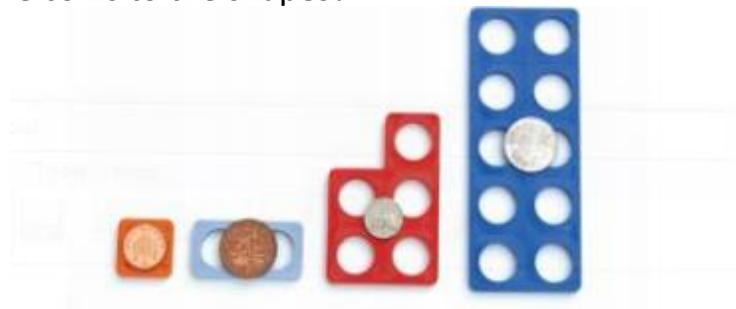
Can you lay out your pennies in the Numicon pattern?



Can you make the same amount with money and shapes?



Can you match the coins to the shapes?



Finger printing patterns

Get your child to dip their fingers in paint and then press them through the holes in the Numicon shapes.



Play with the Numicon baseboard

Filling the baseboard with Numicon presents a mathematical challenge. Finding pieces that tessellate or pieces to fit gaps requires visual-spatial thinking and problem solving.

To increase the challenge, you can take away the 'one shapes' or the 'two shapes' so that they can't just plug the gaps with these. Or ask them to use only the blue and green shapes for example.

You could also introduce a dice and take it in turns to add a corresponding piece to the Numicon baseboard or use two dice to include a bit of mental arithmetic if your child is ready.



Numicon Activity Ideas with plastic shapes

Playdough

Can you match your shape and impressions?



Can you make a number line to help with adding and subtracting?



Can you make a number sentence with shapes and impressions?



Marbles

Can you count out the marbles using the spaces in the shapes?

Count them and impress them into the playdough to confirm your counting.



Bubble bath:

Make sure the Numicon shapes are hidden under the bubbles and ask your child to find a shape with a certain number of holes in it using touch only - strictly no looking!

Find two Numicon pieces, which has more/less holes?

Fishing

Put the Numicon shapes into a tub of water. Ask your child to fish out one shape using a fishing net and to count the holes of the shape they have caught.



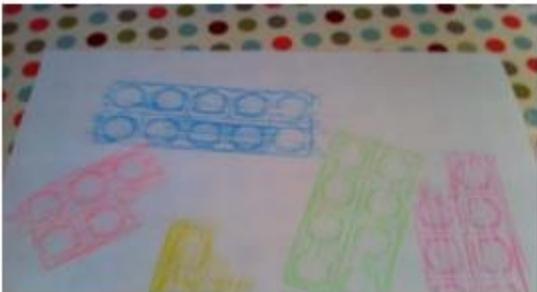
Printing

More fun with paint! Paint the Numicon shape, then turn it over and press the paint side onto paper. You could even create a mirror image by pressing the painted shape onto one half of the paper then folding the other half over the top of the printed image, giving it a rub, then pulling it back to reveal a mirror image.



Rubbings

Place a Numicon shape under a piece of paper and then get your child to rub over the paper with crayon to find out which shape is underneath. Cover the Numicon shape with foil and ask your child which shape is underneath.



Baking

Mix together the ingredients for a biscuit base, roll it out, and then press the Numicon shapes into the dough. Cut out the shapes, bake, and then add sweets to the circles made by the finger holes.

Sand

Hide the Numicon shapes in the sandpit and ask your child to dig around until they find a shape. Once they have dug it out, ask them to count how many holes the shape has.



Numicon Activity sheets

These can also be downloaded from

<https://home.oxfordowl.co.uk/maths/numicon-guide-for-parents/>

Maths Outdoors 1

A Numicon calculating activity

What you will need

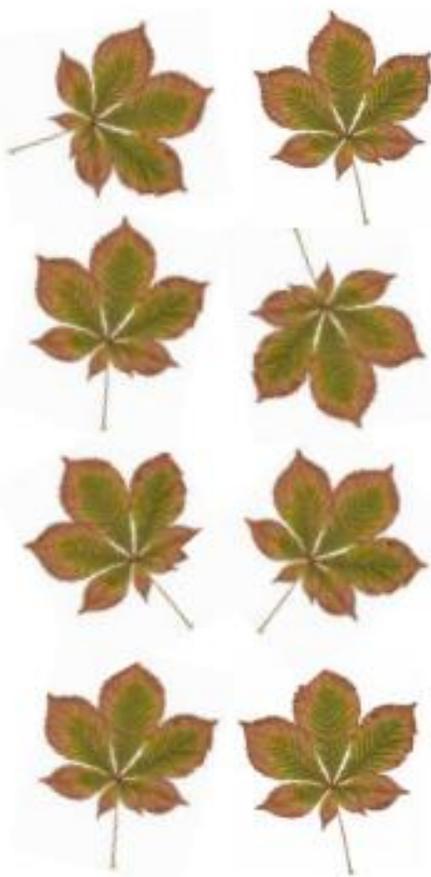
- A container to carry outdoors
- Numicon Shapes for when you are back inside

What to do

- Take your container and gather collections of objects. You might collect leaves, acorns, seeds, shells, or twigs, for example.
- When you get back inside, sort out your objects into sets. Calculate how many of each you have by arranging them into Numicon Shape patterns. Use the Numicon Shapes to check your totals.
- Which objects did you gather most of?

Extensions and questions

- How many objects altogether?
- If you wanted to make each set up to a tens number, how many more would you need to add to it?
- How could you make a set of sticks bigger without collecting more? (E.g. by snapping them in half.)



Homemade Wrapping Paper

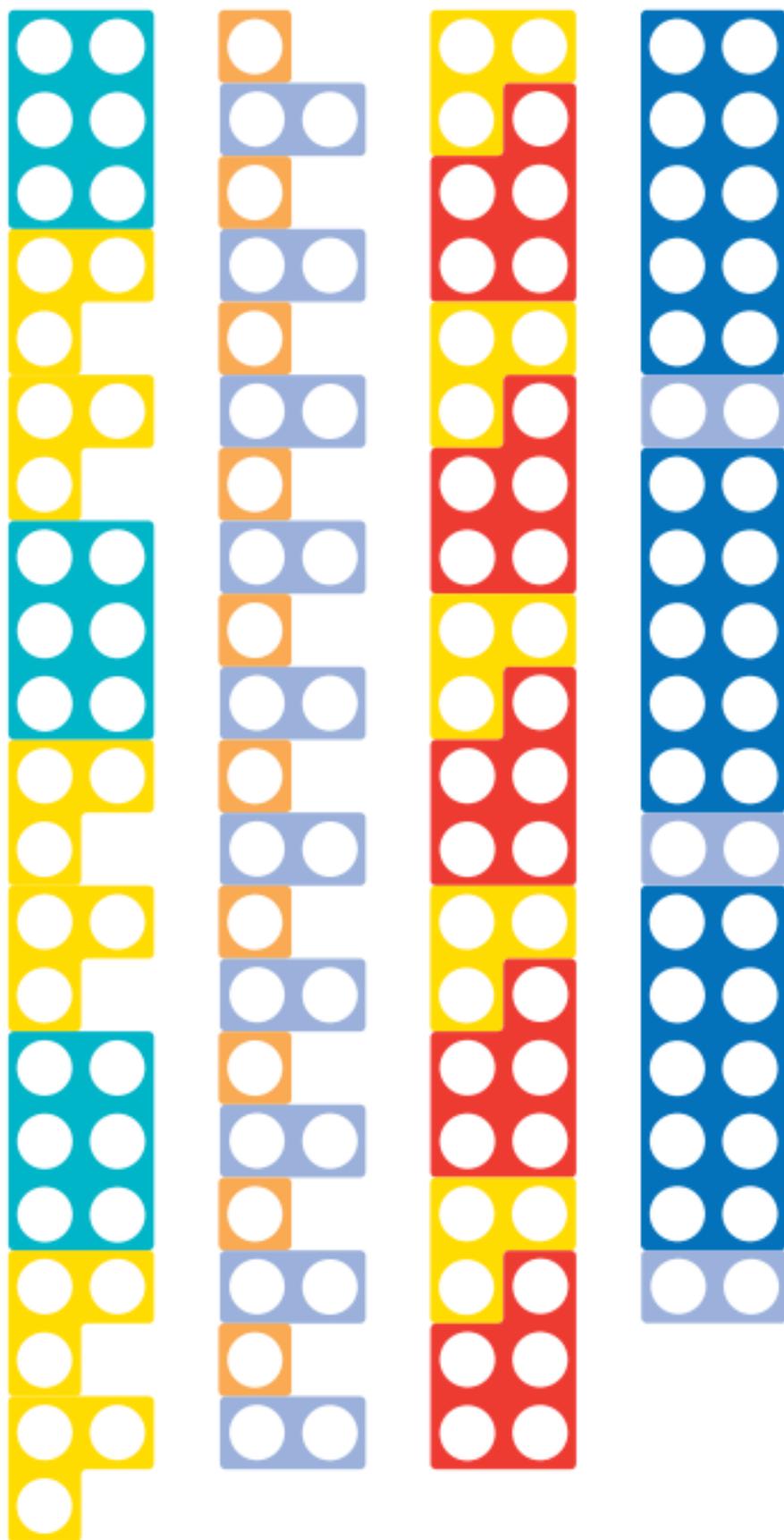
A 'Messy play' pattern activity for individuals or groups

What you will need

- A large selection of Numicon Shapes
- Brightly coloured paints
- Large sheets of tissue paper or large rolls of plain wrapping paper.

What to do

- Ask children to create their own wrapping paper designs by printing repeating patterns using the Numicon Shapes.
- Children can start by copying the examples on this page before creating their own.
- Increase the complexity of the patterns by increasing the choice of colours and Shapes.
- Make the activity simpler by using the Numicon Pegs instead of the Shapes and using fewer colours of paint.



Flowers

A Numicon adding activity

What you will need (per pair)

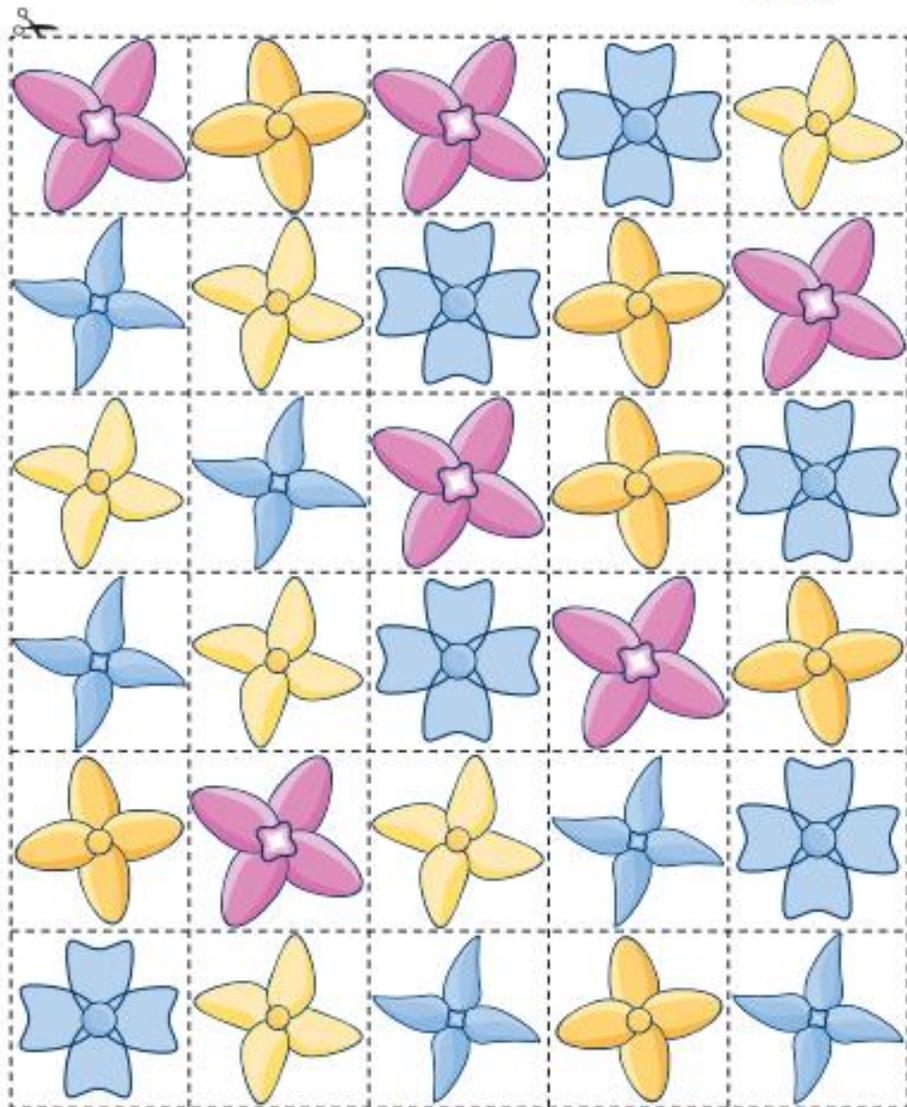
- Two copies of this flowers sheet and one copy of the flowerpots sheet, printed on card, with the flowers and pots cut out
- One of each of the Numicon Shapes 1–10
- Numicon Feely Bag
- Extra Numicon Shapes (for the Extensions and questions).

What to do

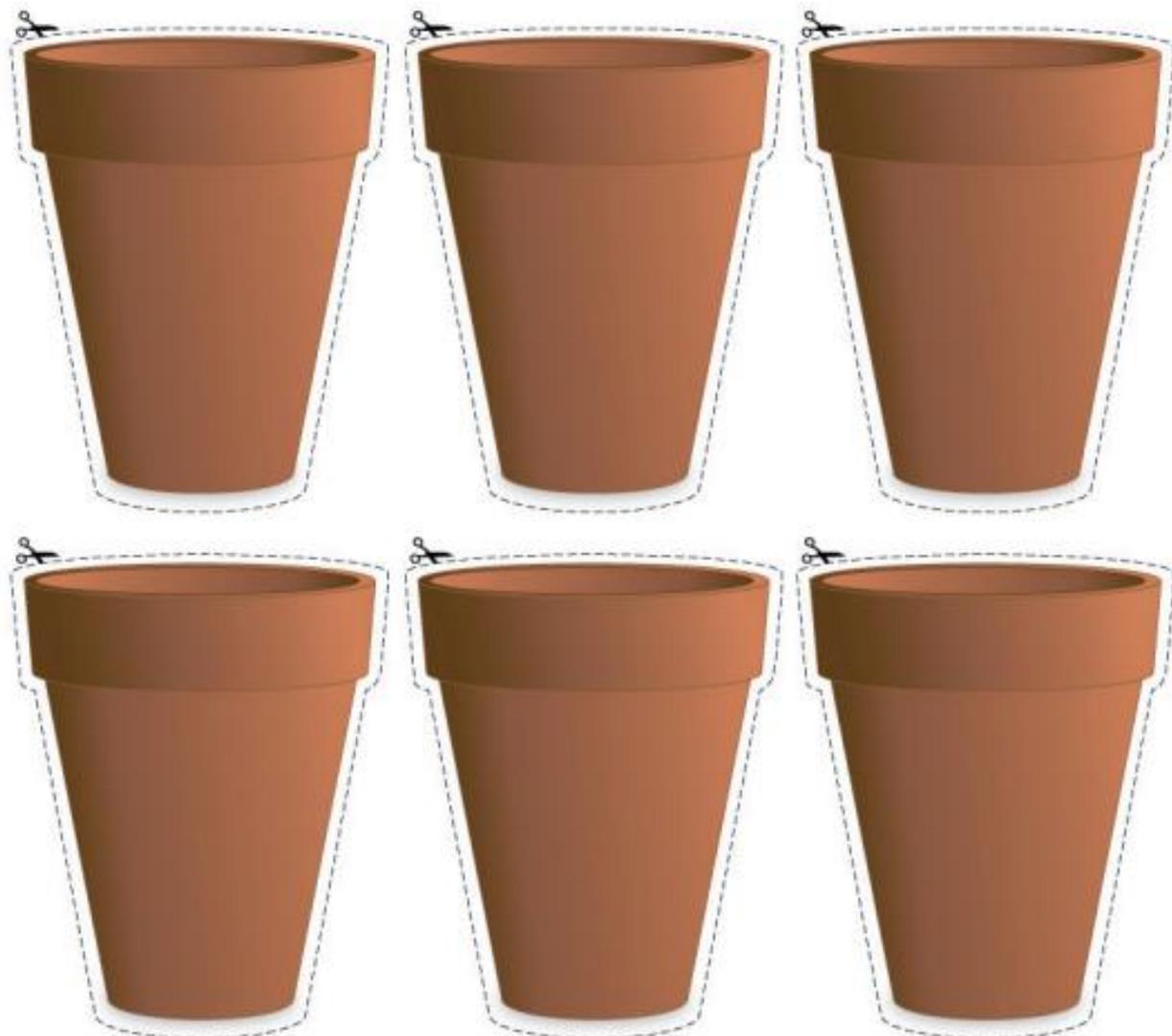
- Scatter the flowers across the table. Children take turns in picking a Shape out of the Numicon Feely Bag and placing a group of flowers in the same Numicon Shape pattern as the Numicon Shape they chose. The Shape can be placed over the pattern of flowers to check that they are right.
- Children then take turns to ask an adding question about flowers to their partner, for example: *If there are four flowers in my flowerpot and five flowers in my garden, how many do I have altogether?*
- Each partner checks the other's answer and both children record the adding sentences.

Extensions and questions

- Ask children to take two Shapes from the bag, put them together and then identify the total. Can they put their hand in the Feely Bag and find one Shape that is equivalent to the total?
- Ask children make a repeating pattern with the flowers. For example, two blue flowers, three yellow flowers, two blue flowers... Then can they make a similar repeating pattern with Numicon Shapes?
- Ask children to make a pattern with the flowers that increases by one each time. The flowers could be arranged in Numicon Shape patterns. Can they match the Numicon Shapes to their flower arrangements?
- Encourage children to write number trios from their adding sentences, and to try making subtracting sentences based on the trios.



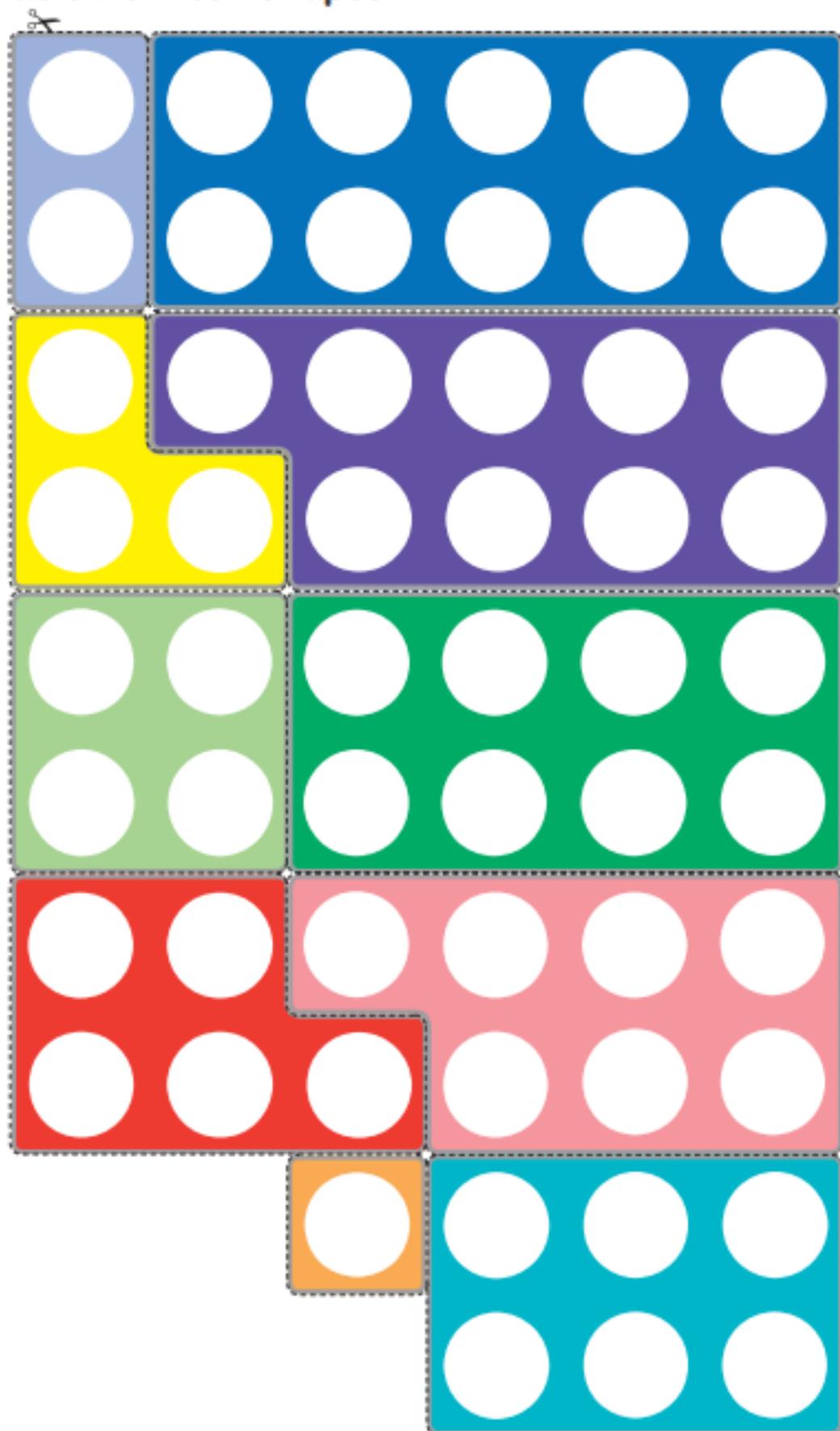
Spring Flowers: Flowerpots sheet

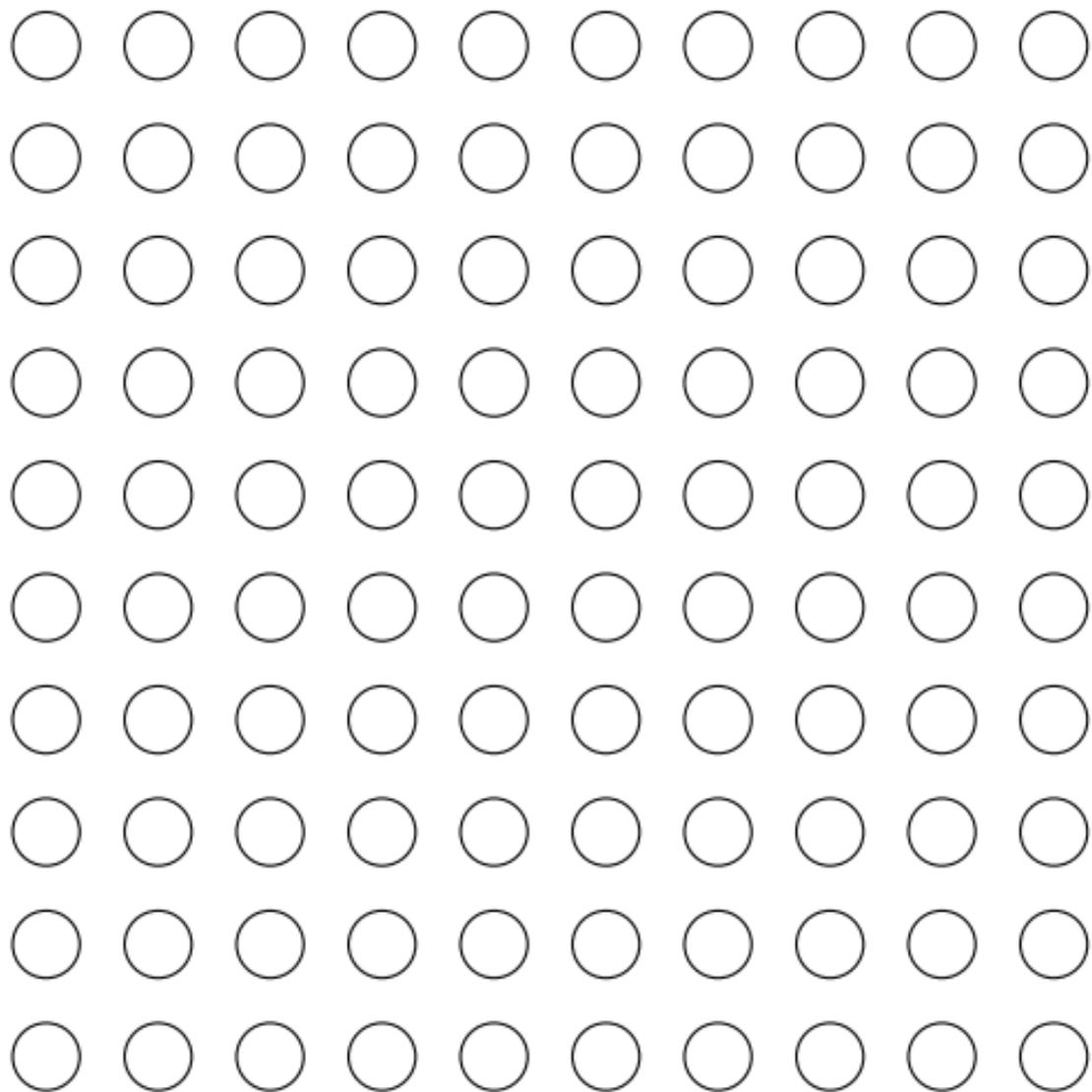


Numicon shapes and baseboard to print out.

These can be printed and cut out for use at home on paper or card.

Printable Numicon Shapes



Printable Numicon Shapes and Baseboard

Printable Numicon Shapes

