



Numicon Workshop

An introduction to Numicon
in Early Years

Workshop Objectives

- What is Numicon?
- How does it help children learn in maths?
- How can you use it to support your child at home?



What is Numicon?

- Numicon is a maths resource that uses a series of **structured images to represent numbers**.
- It is a teaching resource designed to help children **visualise** numbers.
- From this visual picture they can see how we can **add, subtract** and go onto **multiply and divide** numbers and see the relationships between these.
- The different **coloured** Numicon shapes represent different numbers.
- Numicon is **multi-sensory**. Children can touch as well as see the numbers.



How does it help children learn in maths?

- It can be challenging for a child to understand the mathematical concept of 'five'.
- But the Numicon shape for 'five' looks like '**one less**' than six and '**one more**' than four.
- Numicon shapes are designed to exploit **three key strengths** of young children, in order to help them understand number:
 - Learning from **doing**
 - Learning from **seeing**
 - Children's strong sense of **pattern**



How does it help children learn in maths?

- Children can understand number **relationships**
- Children learn **mathematical language**
- Children learn to **make connections and to use and apply their understanding.**
- <https://www.youtube.com/watch?v=Lqf7AssF9Kc>

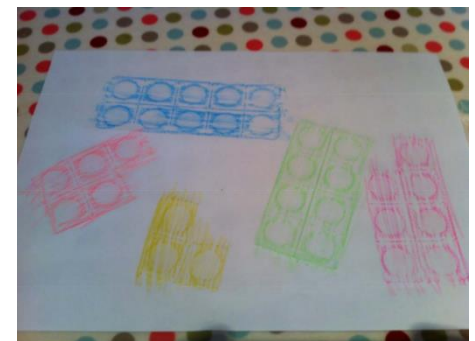
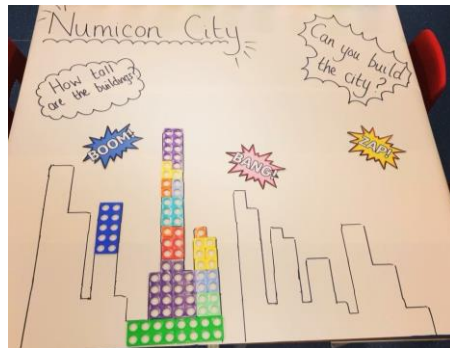


How can you use it to support your child at home?

- Each activity will help you and your child become more familiar with the Numicon pieces, and provide opportunities to develop early mathematical conversations.

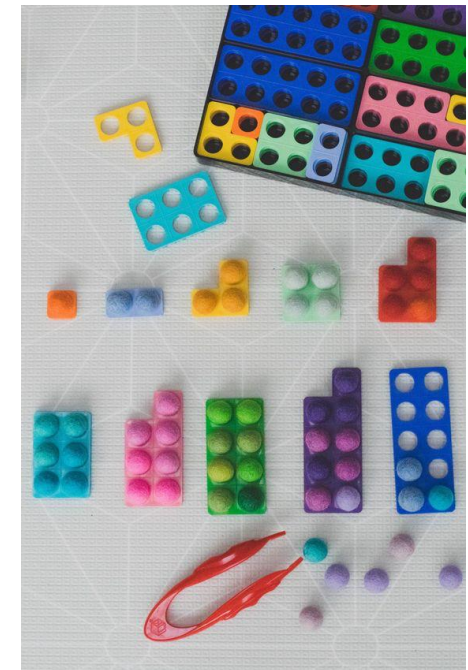
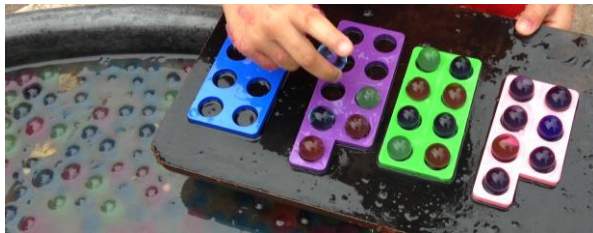


Painting with Numicon and arranging it creatively



Marbles

- How many marbles can you put in each piece?
- Can your child take a handful of marbles, can you find the Numicon piece they will fit in exactly?



Playdough

- Pushing Numicon pieces into playdough
- Which Numicon piece made this pattern?
- How many bumps are there?
- Which 2 pieces could cover the pattern?



Numicon Staircase

- Can you lay out the Numicon pieces in order to create a staircase?
- Ask your child to cover their eyes and then remove one
- Can they tell you which piece is missing?



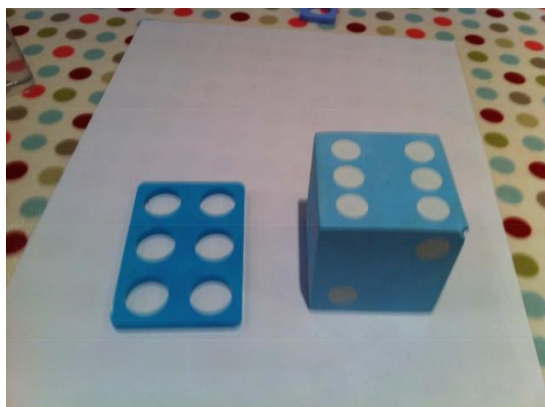
Pennies and Numicon

- How many pennies would cover the Numicon pattern?
- Can you lay out your pennies in the holes of the Numicon piece?



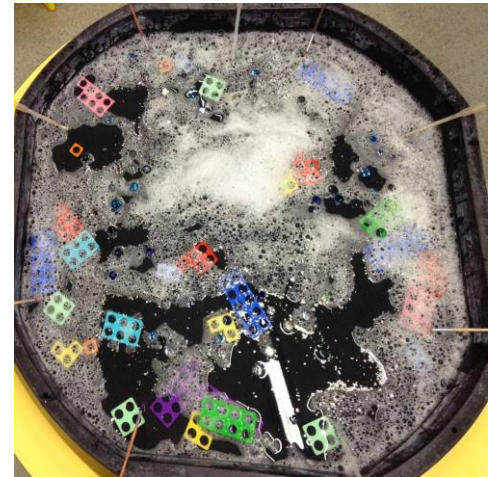
Using a Dice

- How many all together?
- Match the number thrown to the Numicon piece



Fishing in Water

- Numicon pieces are great to use in water
- Can you set your child to find pieces in the bath? Even more fun if the bath has bubbles, can you feel around and find a Numicon piece with 3 holes?
- Can they find a piece that is more or less?
- Can your child find 2 Numicon pieces? How many would they have if the numbers were added together?



Odd and Even Numbers

Mr Odd and Mr Even

A game about odd and even numbers

What you will need...

- Two Numicon 0-5 dice
- Counters
- 2 copies of this sheet

What to do...

- Players takes turns to roll both dice and add the scores together.
- If their score is an odd number they put a counter on their 'Mr Odd' frame. If their score is an even number they put a counter on their 'Mr Even' frame.
- The overall winner is the first to fill both frame



Find one more

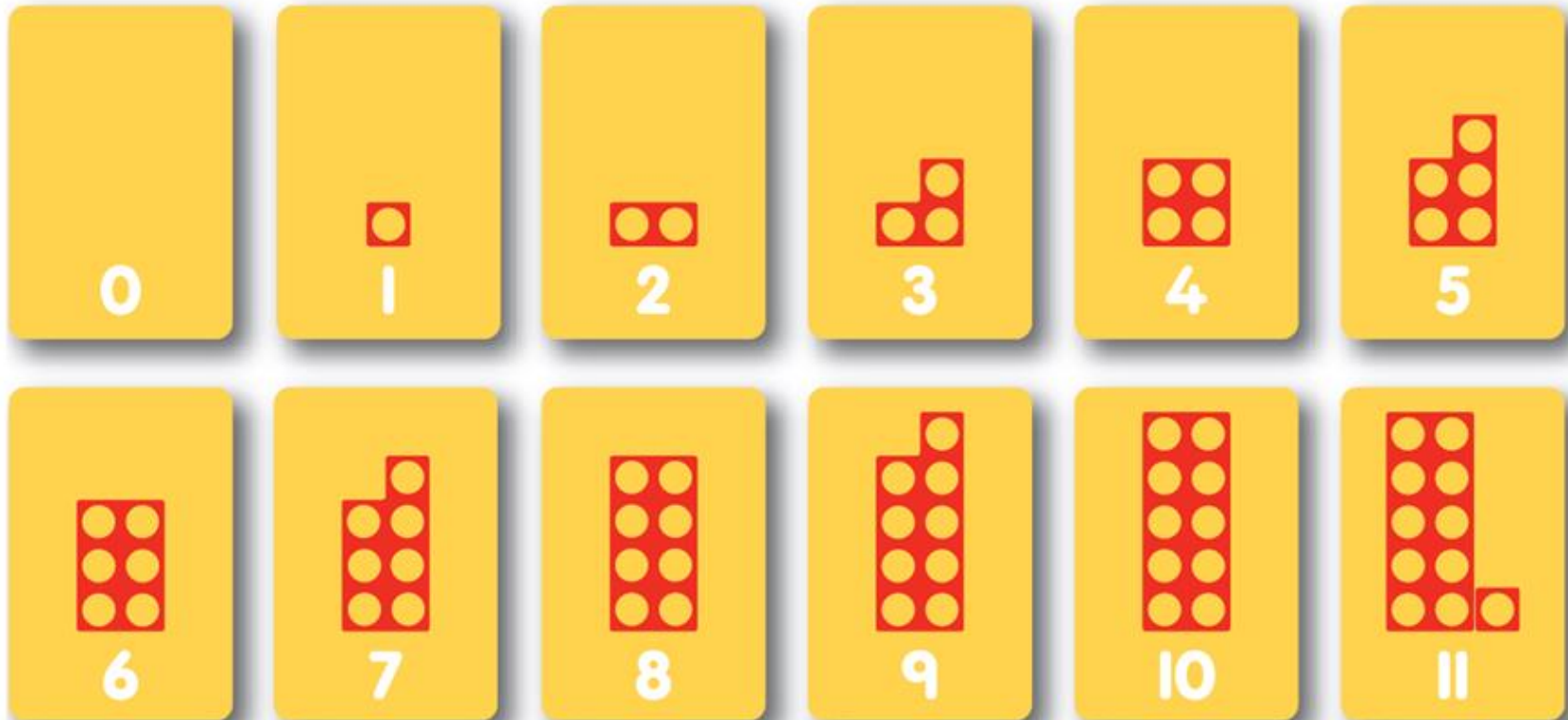
An addition game

What you will need...

- Numicon 0-5 and 5-10 dice
- 10 counters for each player

What to do...

- Players take turns to choose a dice, roll it, say what one more would be and put a counter on that Numicon Pattern.
- Continue until all the Counters are used. Discuss which Numicon Pattern has the most counters and which has the fewest.



Writing dice additions

An addition activity

What you will need...

- 2 Numicon 0-5 dice
- Pencil

What to do...

- Ask your child to roll both dice and add the two scores to find the total.
- Ask your child to say the addition sentence e.g $4 + 2 = 6$, and write it in the space below the number.

8

3

0

4

6

1

5

9

10

5

7

2

Bowl it over

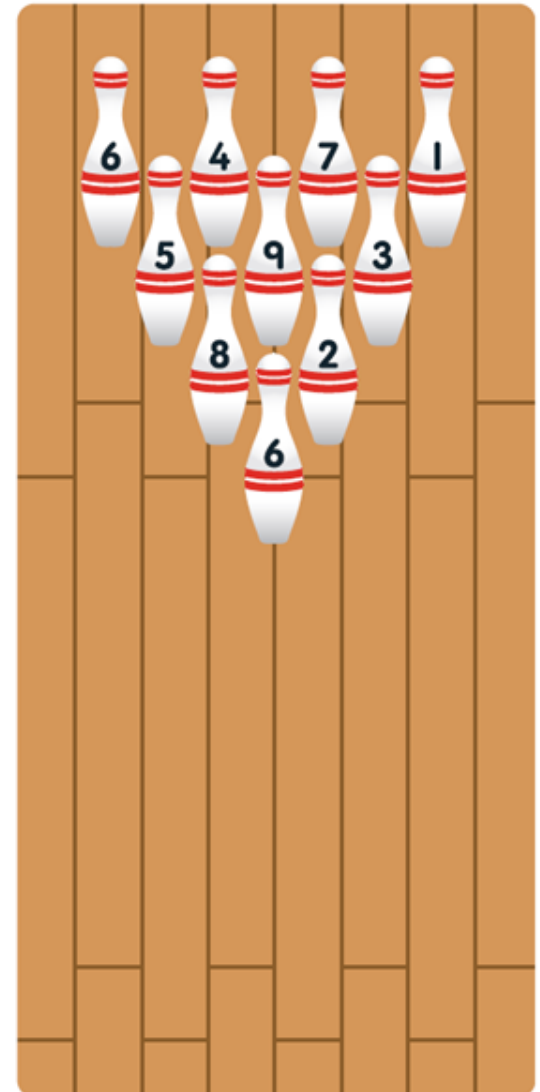
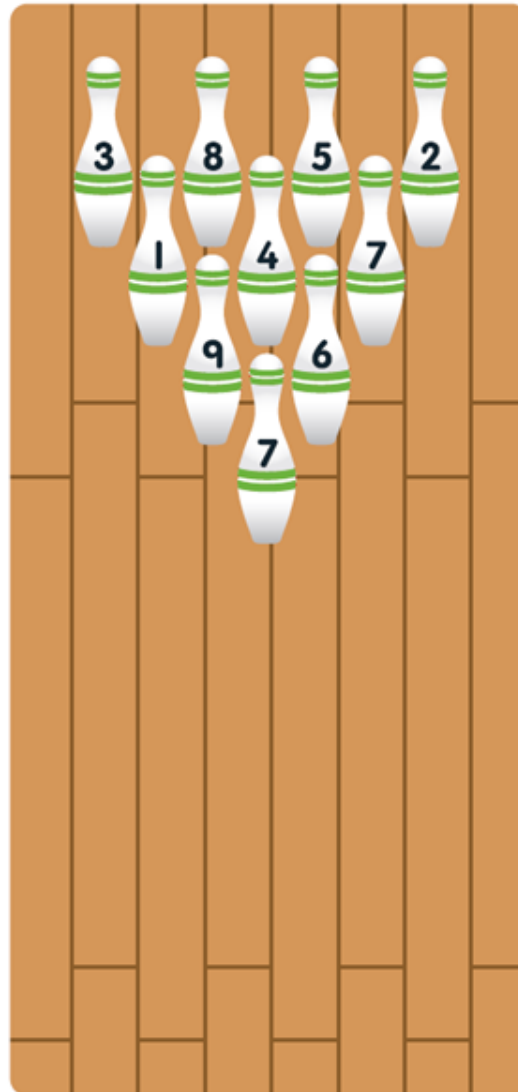
A subtraction game

What you will need...

- Numicon Feely Bag
- Numicon Shapes 1-10 (in the Feely Bag)

What to do...

- Each player chooses a score card
- Players take turns to take two Shapes from the Feely Bag, take away the smaller from the larger and put a counter on the answer on their score card.
- Put the Shapes back in the Feely Bag.
- Players miss a turn if an answer is already covered.
- The winner is the first to cover their score card.



Writing Dice subtractions

A subtraction activity

What you will need...

- Numicon 0-5 and 5-10 dice
- Pencil

What to do...

- Ask your child to roll both the dice and subtract the smaller score from the larger.
- Ask your child to say the subtraction sentence e.g $6 - 4 = 2$, and write it in the space below the answer.

8

3

0

4

6

1

5

9

10

5

7

2

Questions?

- I hope you enjoy supporting your child to use Numicon and to further develop their Early Mathematical understanding at home
- Thank you for listening

