

# Maths Workshop

# **By the end of Year R, children should achieve the Early Learning Goal (ELG).**

## **Number**

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

## **Numerical Patterns**

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Children learn best when they are involved practically, especially in play, rather than by rote.

Children learn at different speeds, both to each other and also at different times in their lives.

Children with a good understanding of the number system will have a more secure foundation for mathematical learning.

At Hook Infant School we use the White Rose Education scheme in Year R, which enables us to teach maths in a way that supports children's deeper understanding.

- Learning through stories
- Provides games and activities

# **How we teach Maths in Year R**

We teach 4 whole class Maths sessions a week, these sessions always have a follow-up activity to reinforce skills and concepts.

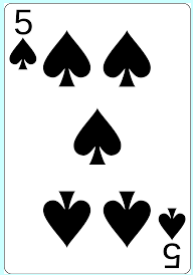
Each classroom has a Maths Area and there are always Maths activities around the classroom to support children's learning.

# Numbers and counting

- We have a big focus on numbers to 10, so children can be secure in the number system before they move on to work with bigger numbers. It is very important for children to have good depth of understanding rather than moving on too quickly. This does not stop us from counting beyond 10.
- We do lots of practising to make sure children are counting objects accurately with touch counting.
- Seeing a number represented in many ways (see next slide).



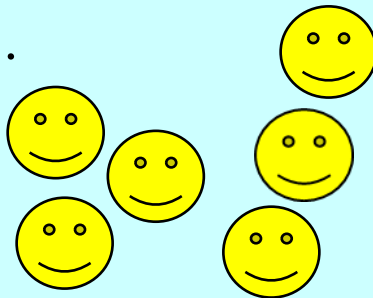
# The concept of 5



# Subitising

Subitising is instantly recognising a number in small groups without having to count it.

This is INCREDIBLY important. Year R children must be able to subitise small number quantities. Research has shown that children that can not do this when leaving Year R have mathematical difficulty.



Children are encouraged to notice groups within the sets they are subitising e.g. “I can see a group of 3 here and a group of two there.”

# Ten frames

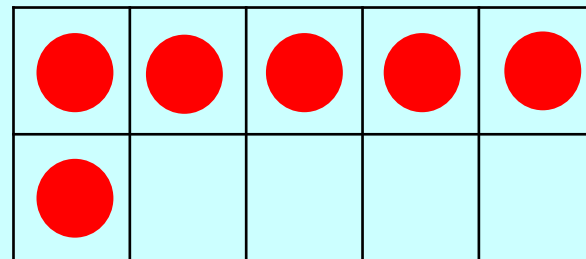
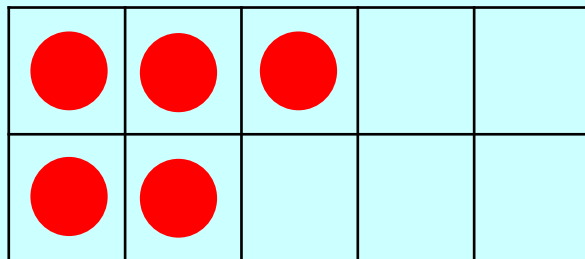
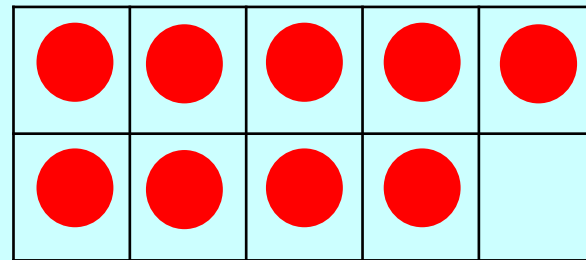
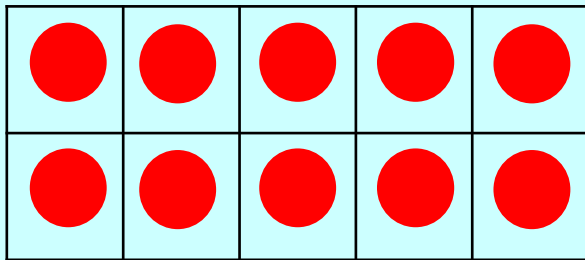
Children are taught to visualise amounts by using a ten frame. There are two ways to fill a ten frame ...

1	2	3	4	5
6	7	8	9	10

1	3	5	7	9
2	4	6	8	10

# Ten frames

Children can use their subitising skills to say how many are in the ten frame, they can also use their knowledge of number bonds of ten.



# Numicon



In order for children to learn they have to 'do' maths. For it to be internalised, children have to manipulate and control the concrete equipment themselves, otherwise it is visual learning.

## Numicon Challenge

At school we ask the children to order the Numicon from smallest to largest and to identify the patterns they see.



- 1 more/1 less
- Counting in twos
- odds and even numbers

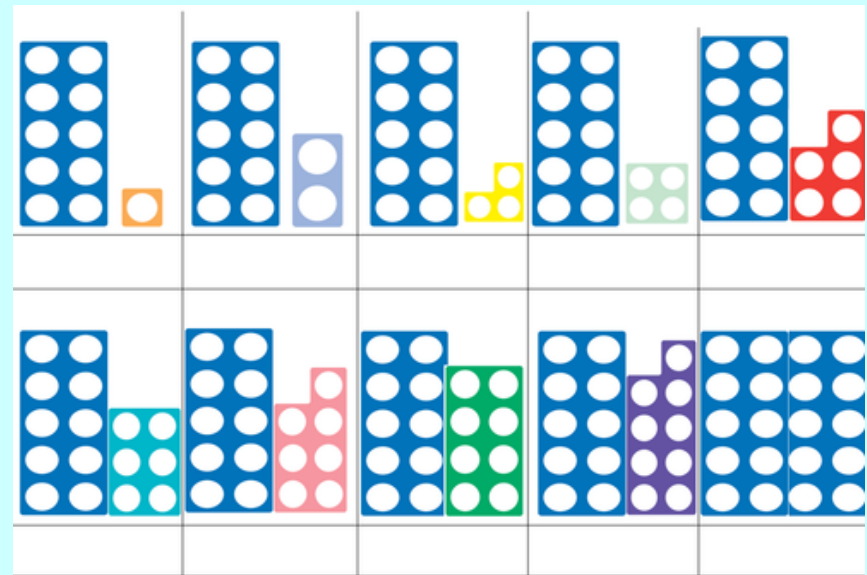
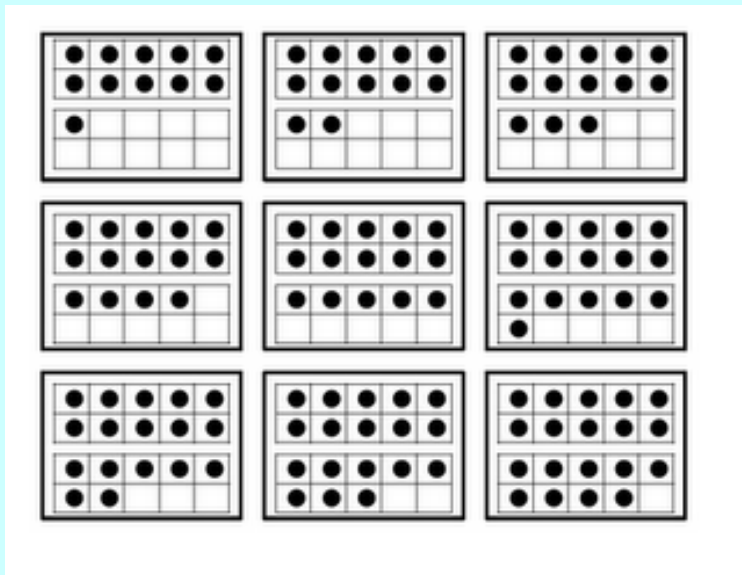
When we order Numicon, the odd numbers always have the extra part on the top right.

# Numbers and representations

Numbers are abstract ideas, but we can *show* children our number representations.

Numbers are arbitrary symbols that represent these amounts.

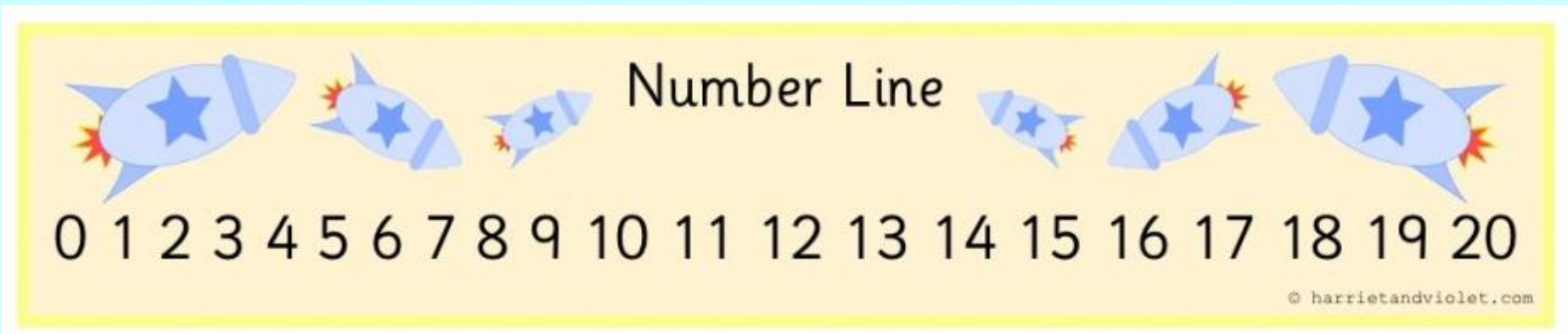
Both Numicon and ten frames can be used to show the concept of teen numbers as being ten and some more. If children can visualise this, it will help them to remember how to write the numbers.





# Calculations

Addition  
Subtraction  
Division  
Multiplication

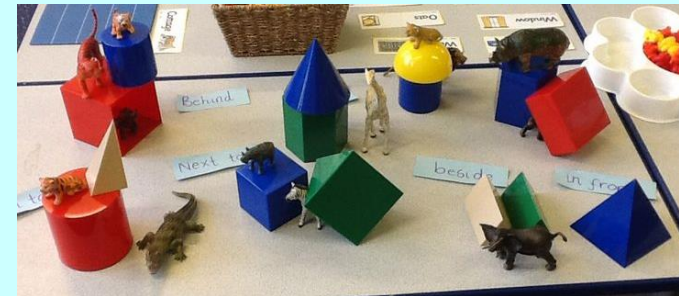


# Shape, Space and Measure



Length  
Height  
Weight  
Capacity  
Time

Position  
2d and 3d shape  
Pattern



In Year R, we teach measures by comparing, then ordering, then using Non-Standard Units.

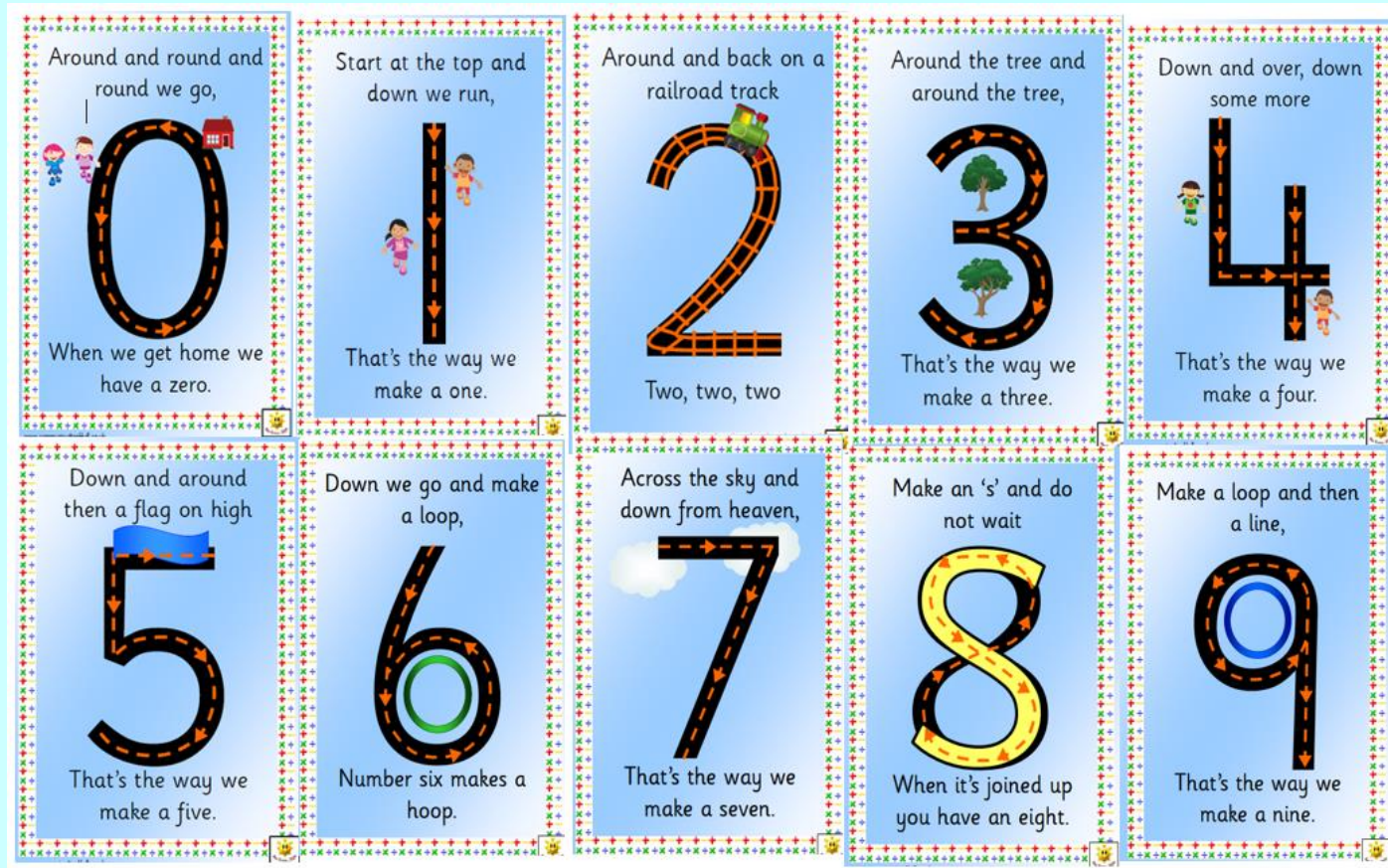
# Recording

In Year R, we do not record in the same way as other year groups. The emphasis is on practical activity and deeper understanding.

- Children will make their own choices about how to represent their mathematical understanding.
- Children will use their own graphics to represent this.
- If children use numerals in their recording, they will be supported to use the correct formation.
- We do not teach children to use symbols like  $+$ ,  $-$  and  $=$ . We encourage children to use words instead, to encourage them to think about the meaning of what they are writing. This will help them later when they need to be able to manipulate written equations.

# Recording

In Year R, we use these number formation rhymes to support the children when writing numbers. You can share these with your children at home.



# Maths Book

Today, your child will be given a Maths handbook.  
This will help you support your child with Mathematics at home.

## My Maths Book: Year R



**This book provides guidance on what your child will be learning at school this year. Please use this to support your child with Mathematics at home.**

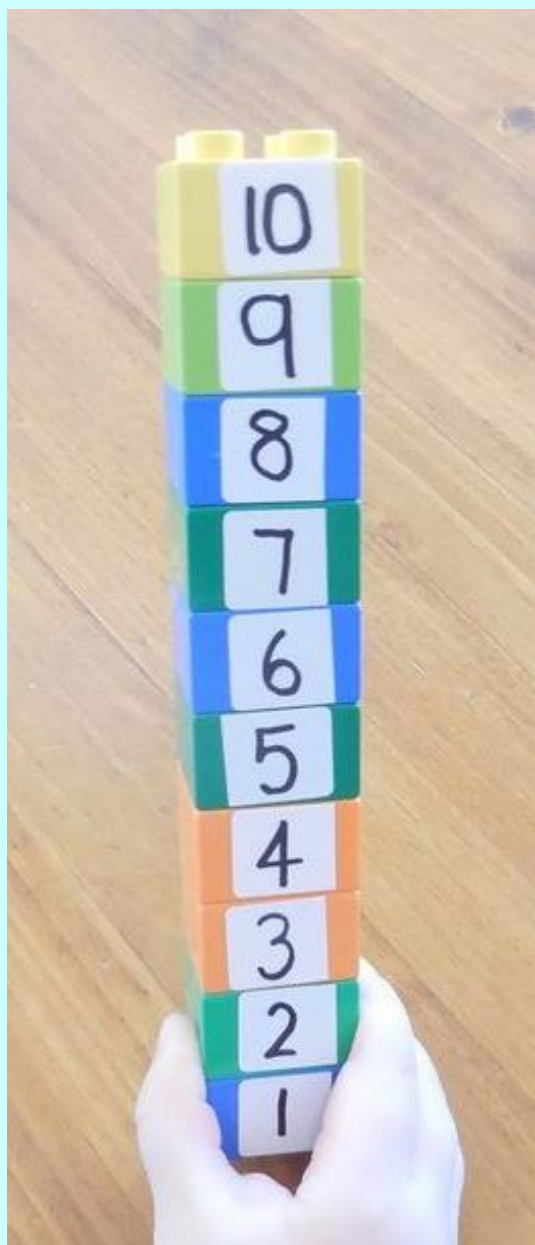
EYFS Development matters:

*'Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.*

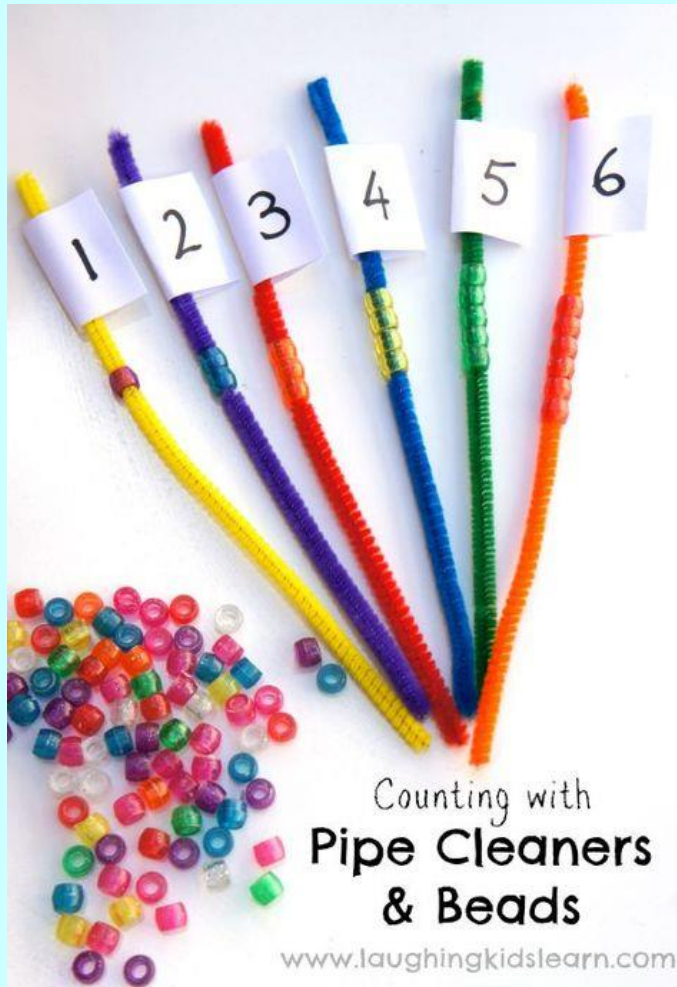
*Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers.'*

# **Activities to share**

Take a look at the following pages for some ideas you can share at home ...

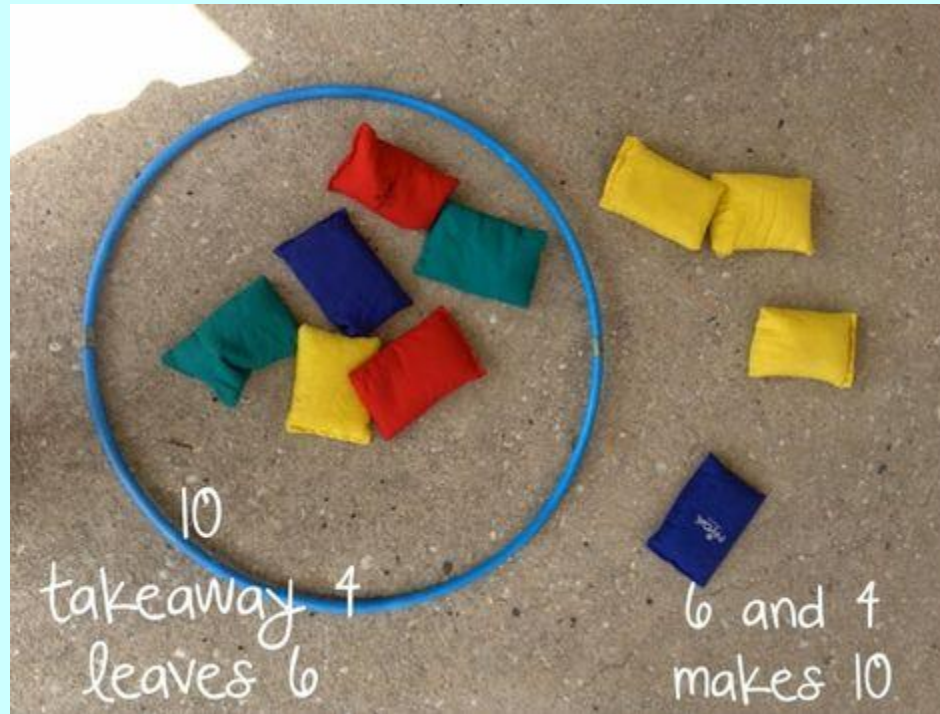


Put numbers onto Duplo bricks and then put them in order. You could extend this by taking one out and asking your child which one is missing and then asking them to explain how they know.

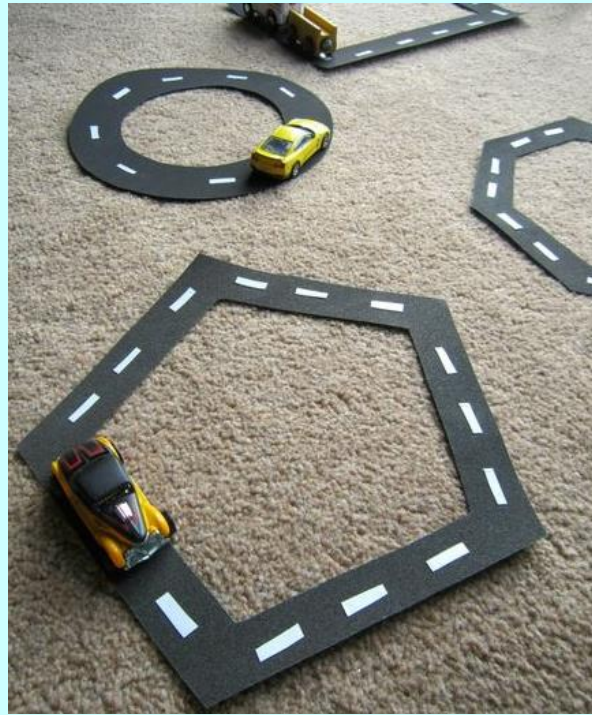


Put numbers onto pipe cleaners and then thread on the right number of beads.

You could extend this by using two colours of beads to show number bonds.



Throw bean bags into a hoop and see how many number sentences you make up. Remember to use words and not symbols!



Make roads based on shapes to help your child learn the difference between sides and corners. Then you could make shape magnifying glasses and be a shape detective.

# Resources

There are apps and websites available, but the range is not as good as it is for phonics.

[www.oxfordowl.co.uk](http://www.oxfordowl.co.uk)

[www.maths4mumsanddads.co.uk](http://www.maths4mumsanddads.co.uk)

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

[www.ictgames.com](http://www.ictgames.com)

[www.mathszone.co.uk](http://www.mathszone.co.uk)

[www.topmarks.co.uk](http://www.topmarks.co.uk)

[www.familymathstoolkit.org.uk](http://www.familymathstoolkit.org.uk)

[www.crickweb.co.uk](http://www.crickweb.co.uk)

[www.countonus.org](http://www.countonus.org)

[www.pinterest.com](http://www.pinterest.com)

Maths tappers (app)

Shape Up! Lite (app)

You Tube – Numberjacks, NumTums, Numberblocks (all Cbeebies)