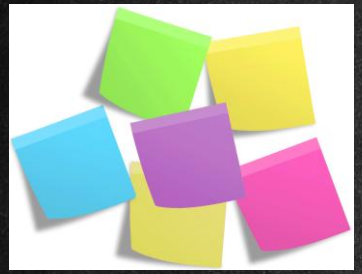
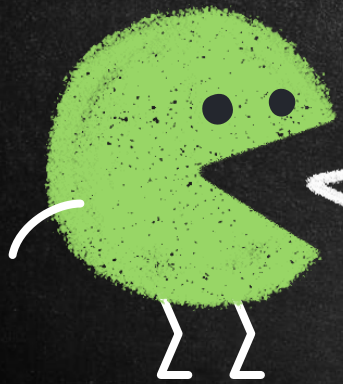
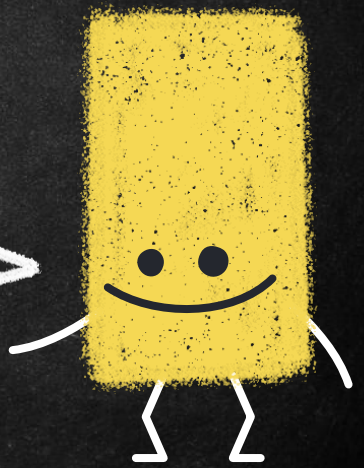
What words or feelings do you think of when thinking about your own experience of maths?



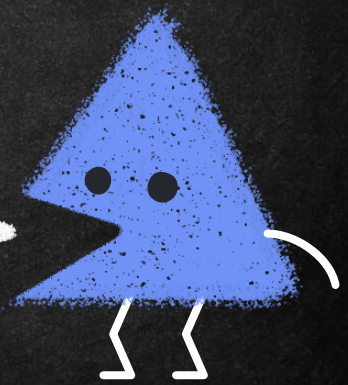
Supporting your child with Maths in the Early Years



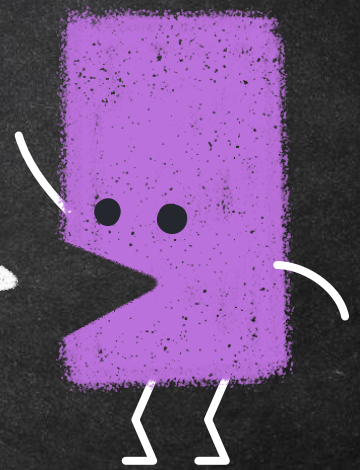


Aims

- Share with you some of the things your child will be learning in school
- Improve your confidence in helping your child with maths
- Share some games and activities for use at home



Everything has changed since I was at school and I’m not confident in the new methods.



How does the Mastering Number Programme help us teach maths in school?

The Mastering Number Programme in Reception will help your child to develop good *number sense*.

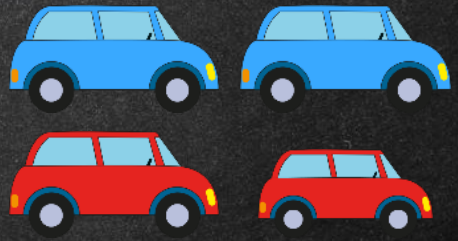
Some of the things they are learning include:



Counting



Recognising small numbers of objects and making their own collections

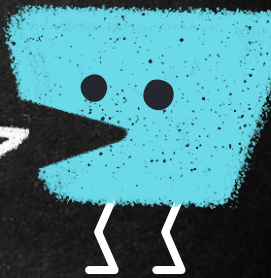


Know different ways to 'make' (compose) a number

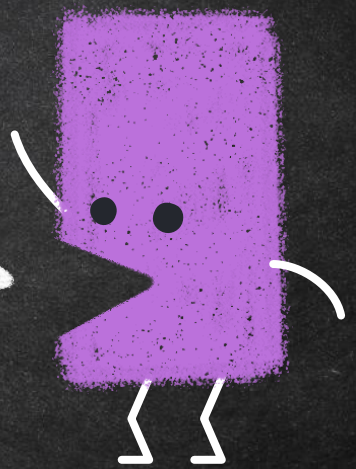
Aims for your child/ren

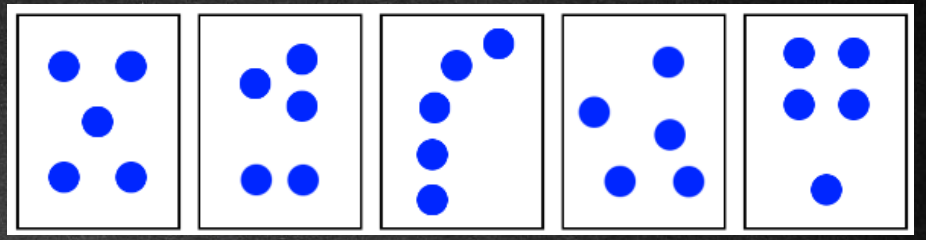


- To encourage a love of maths;
- To develop fluency and independence;
- To develop reasoning and problem solving;
- To develop confidence and the ability to make connections

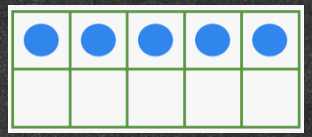


The first few years of a child's life are especially important for mathematics development. Research shows that ***early mathematical knowledge predicts later reading ability*** *and general education and social progress*





Subitising

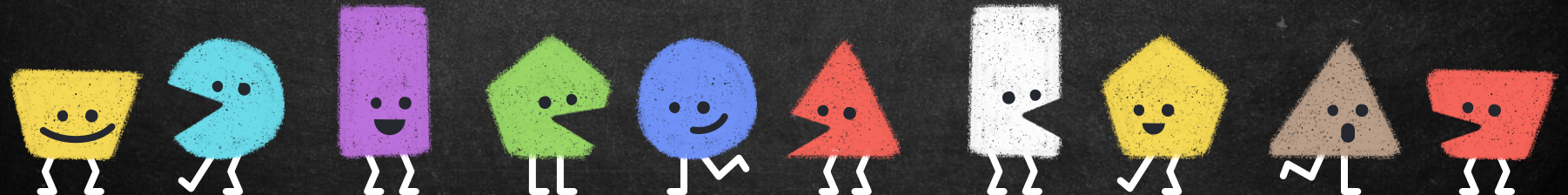


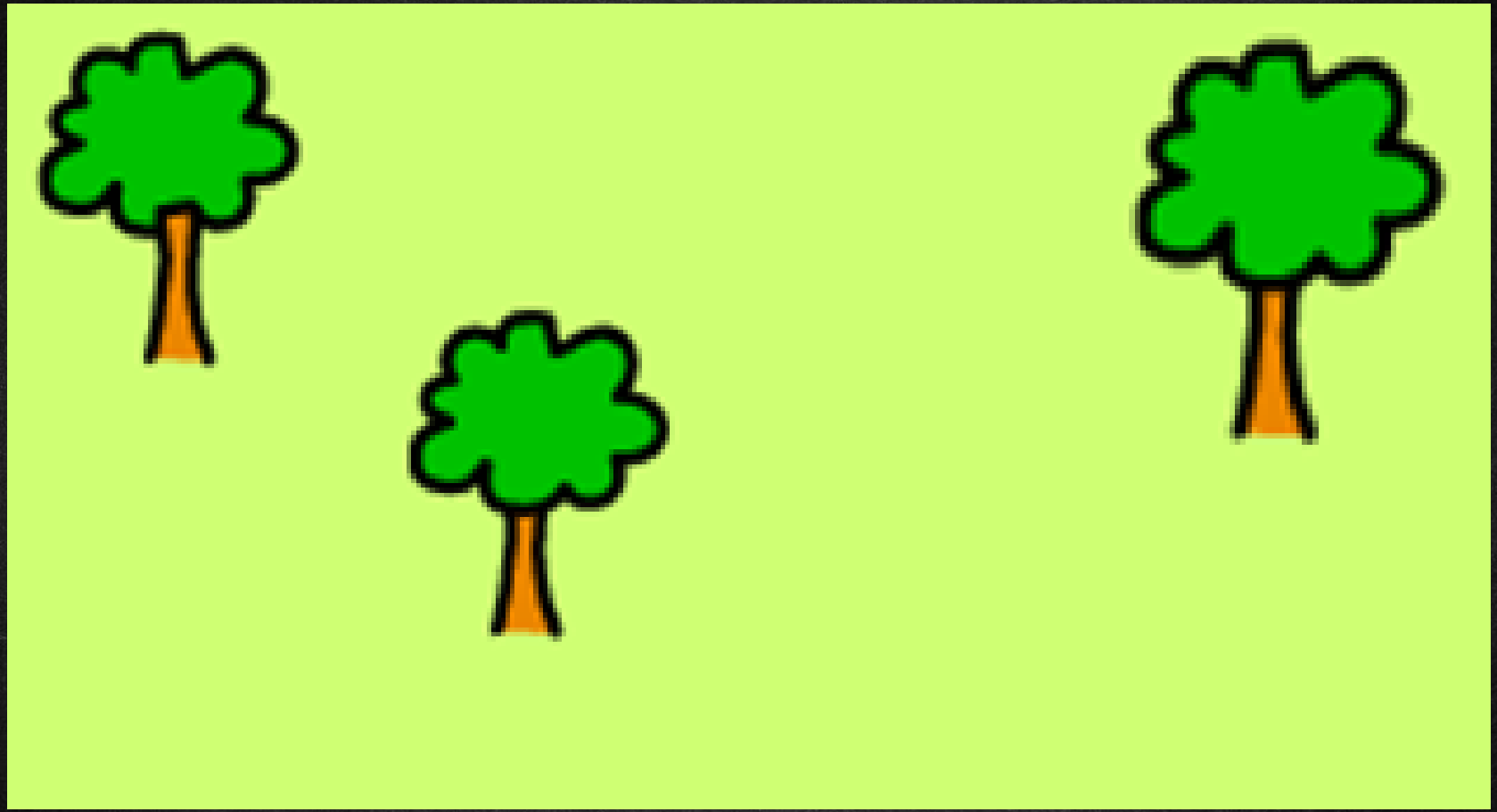


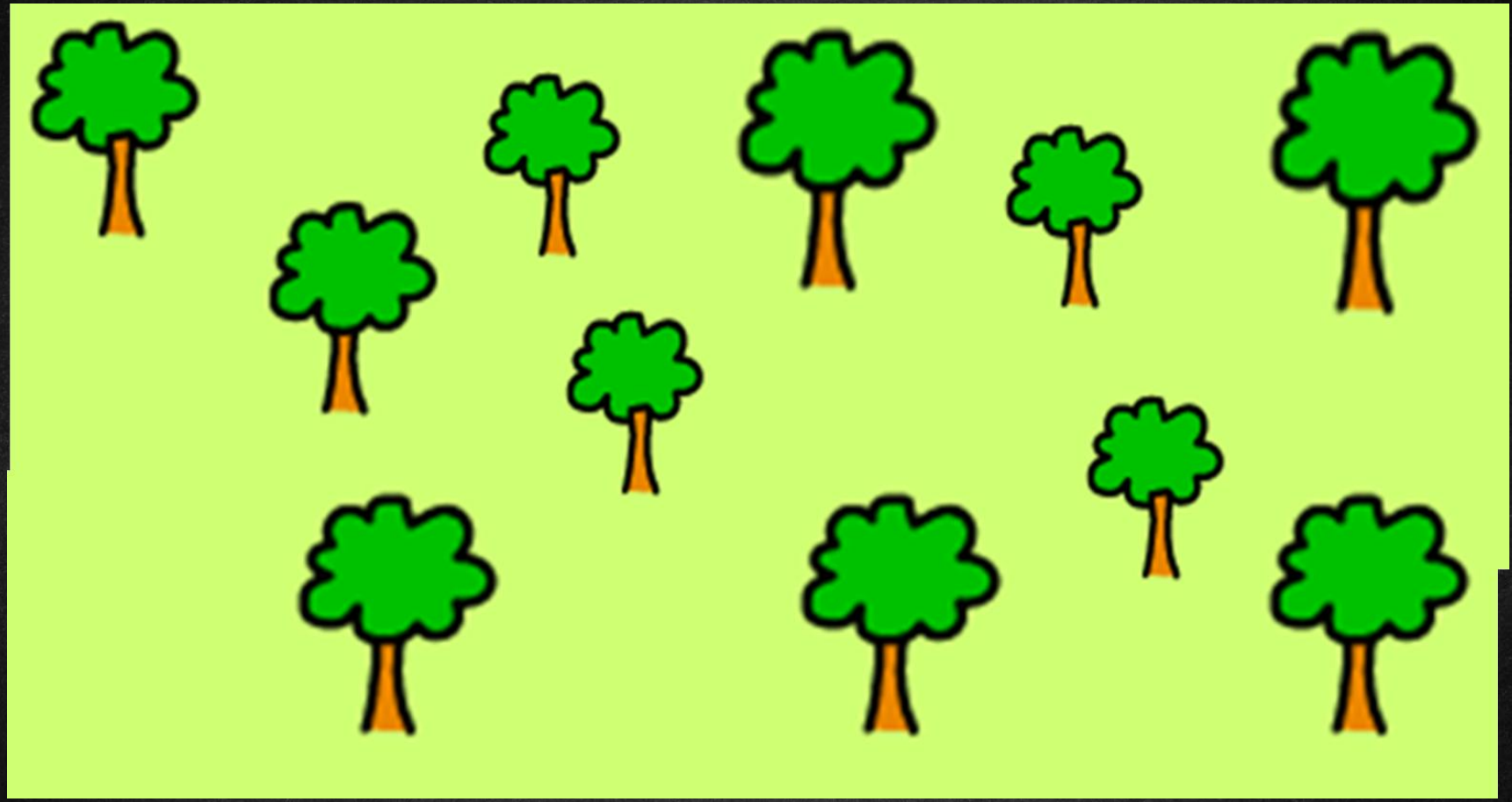


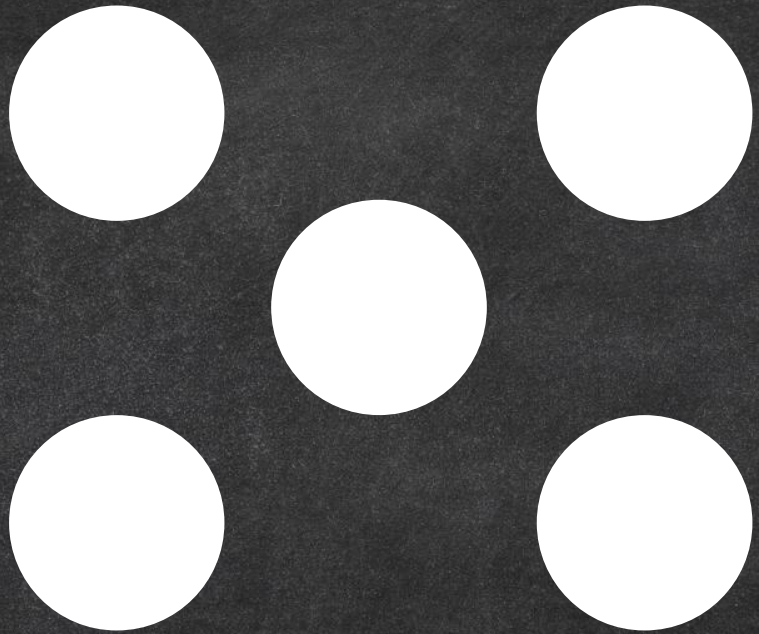


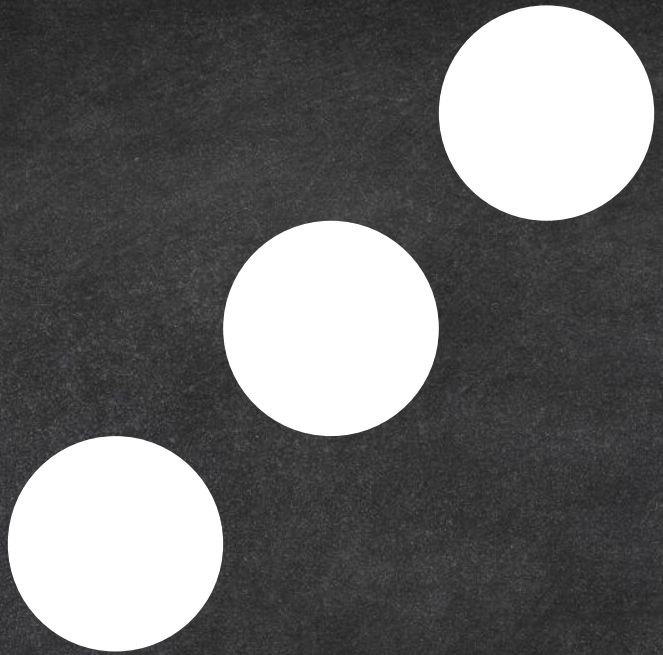
Recognising numbers of things without counting











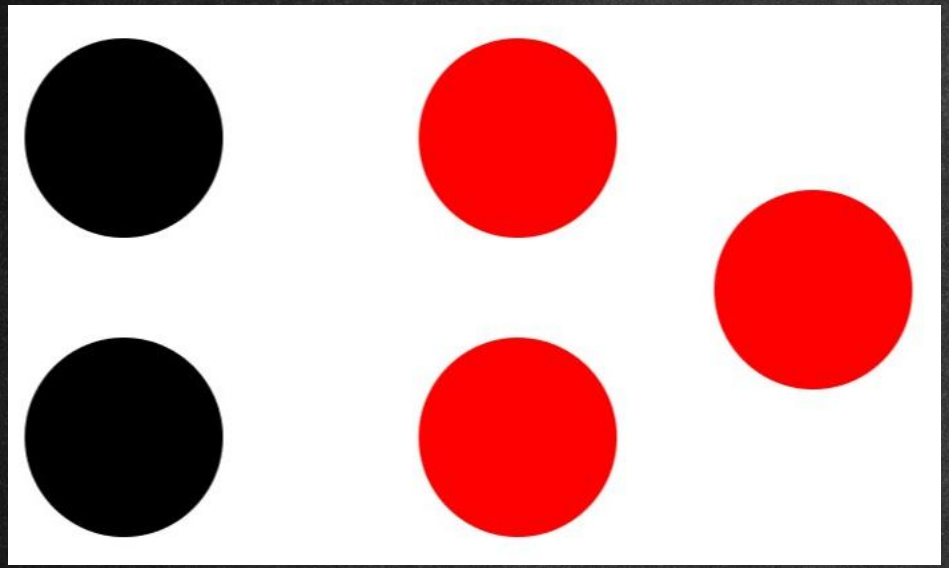


Subitising

Subitising is the ability to recognise a *small quantity* of objects *without the need to count*.

Sometimes when we subitise we can see two groups at once; if we know that 3 can be 'made' of 2 and 1, then we know how many there are altogether without counting.

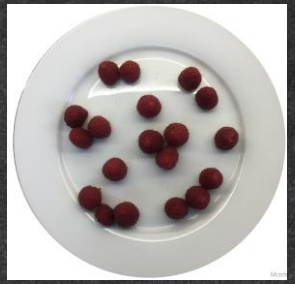
Subitising



Activities

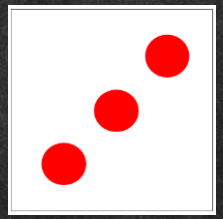
Pour marbles or lentils onto a plate.

Ask: 'Can you spot groups of 3?'





Dice Games – recognise the number without counting

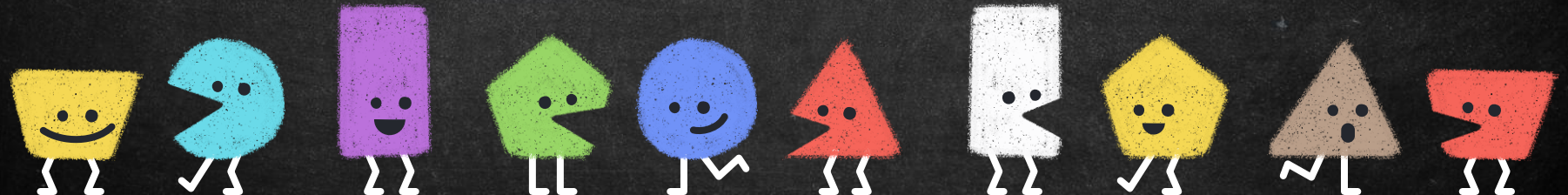






Cardinality and Counting

The cardinal value of a number refers to the quantitiy or ‘howmanyness’ of things it represents



Cardinality and counting

Dice Games

Playing dice games and collecting a number of things

Counting

Things of different sizes, things that can't be seen (sounds, actions, words), things that cannot be moved (pictures on a screen)

Hidden Objects

Small toys hidden under a bowl/blanket – shuffle them, lift the bowl/blanket briefly and ask how many there were

Tidy-Up Labels

On containers label the number there should be and check by counting that nothing is missing

Puppets

Correct a puppet who may say that there are more or fewer objects after the objects have been rearranged

Books

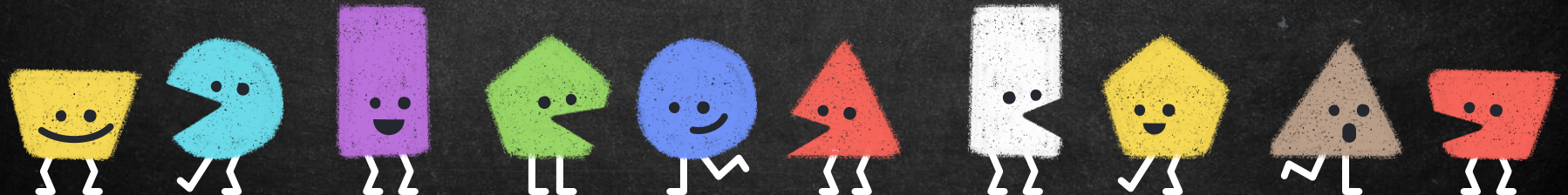
Reading number books and look for the number symbols, including different examples of the same number



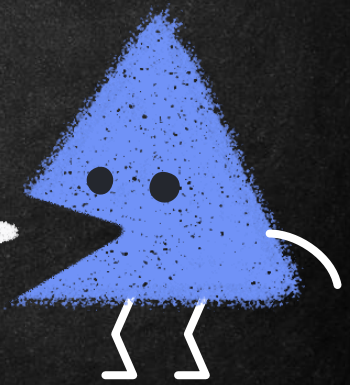
Composition

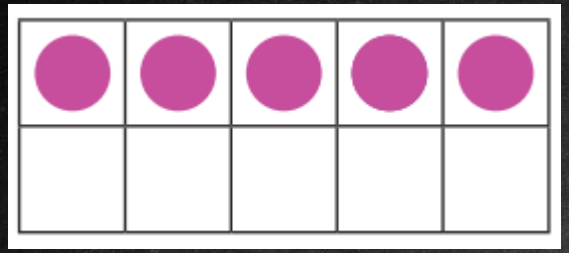


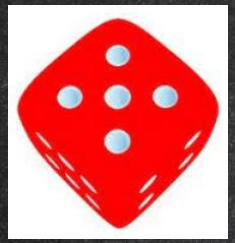
Understanding that one number can be made up
from (composed from) two or more smaller numbers

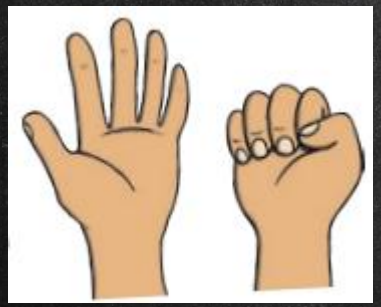


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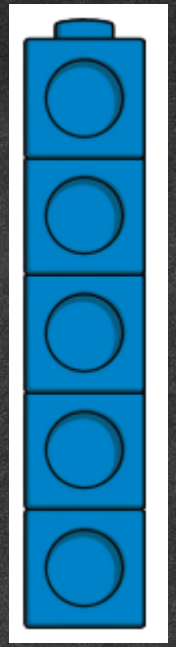








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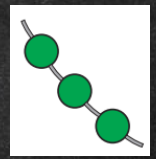


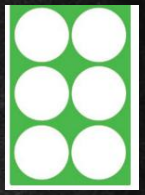


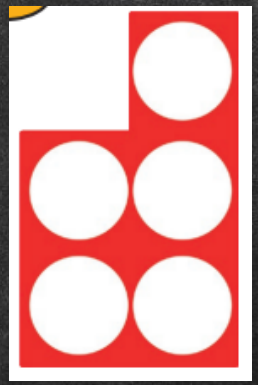
What it's not!

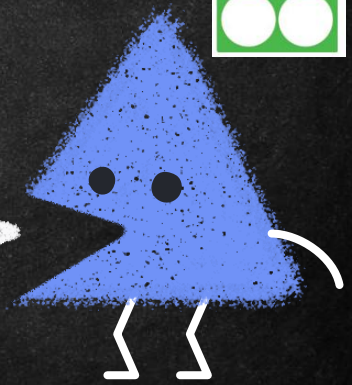












Composition

Arrangements

Making 5 and exploring all the ways that ‘five’ can be and look. E.g. giant ladybirds: There are 5 spots. I can see 4 and 1, 3 and 2 etc.

Skittles

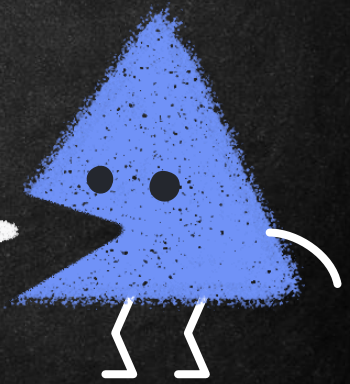
How many are standing? How many have fallen over? How many are there altogether?

Hiding Games

For example: ‘Five toys go into a tent, then two come out. How many are left in the tent?’

Bunny Ears

Using your fingers like bunny ears. ‘With two hands, show me five fingers. Can you do it in a different way?’



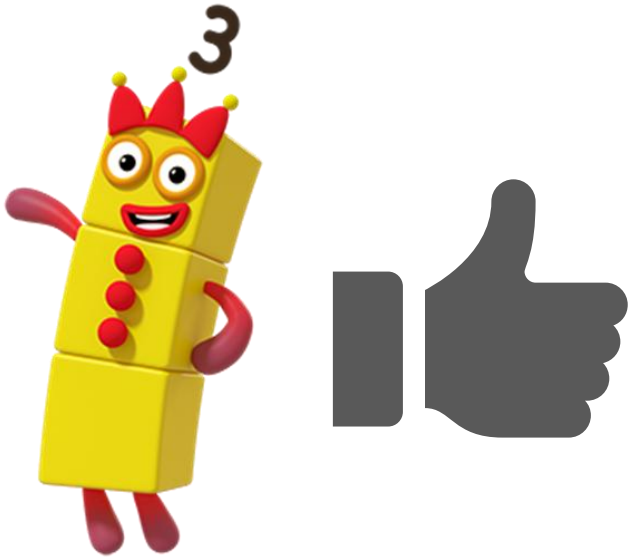
Play ‘3 or NOT 3?’

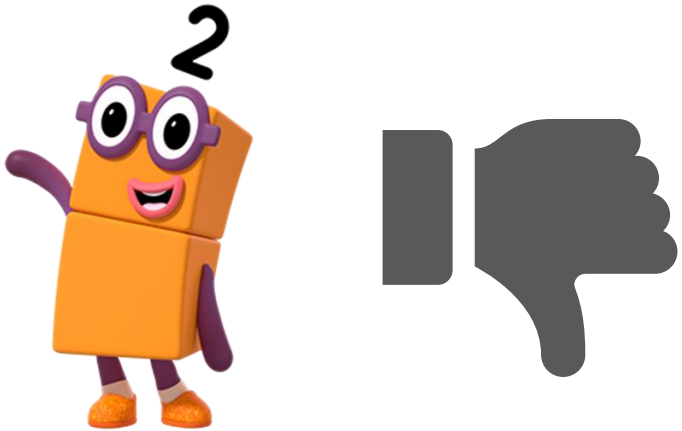
This activity involves spotting when there are 3 of an object or explaining why there are NOT 3.



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Put your thumb UP if you can see 3, and down if it is NOT 3.

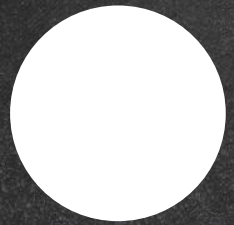


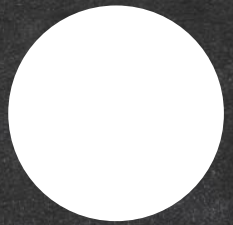


(Image © Alphablocks)

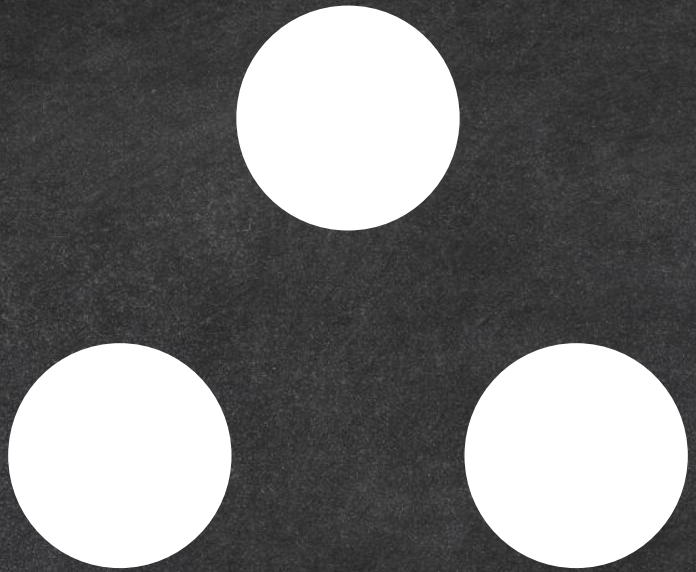
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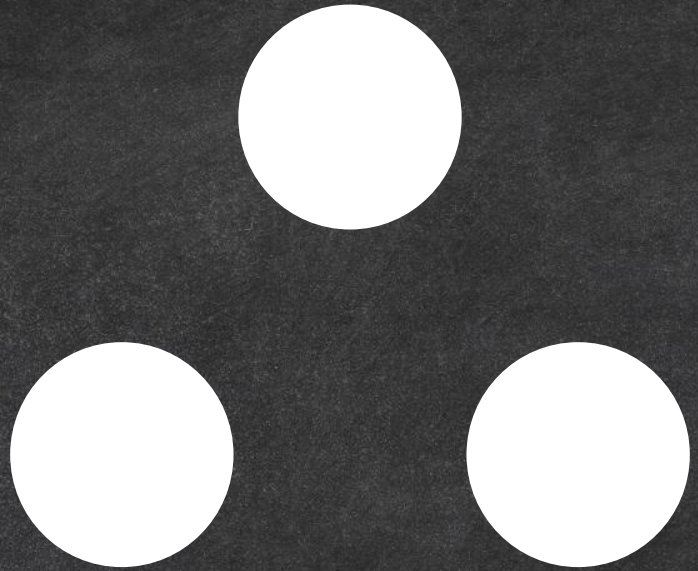




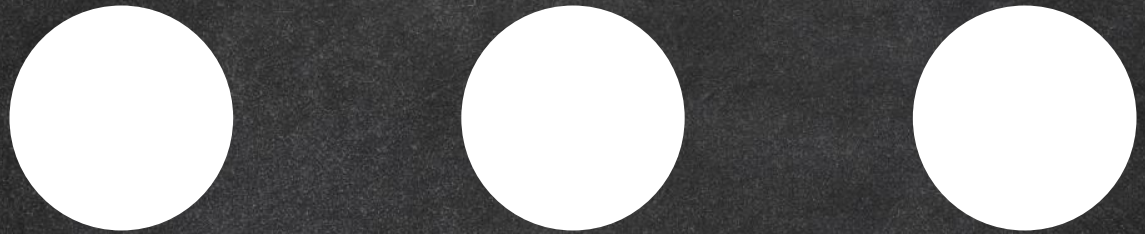


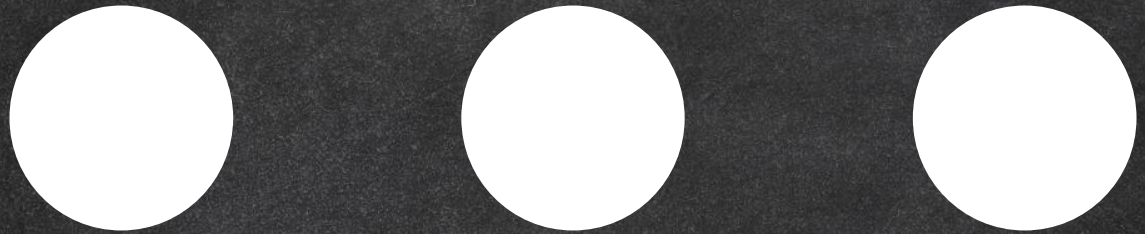




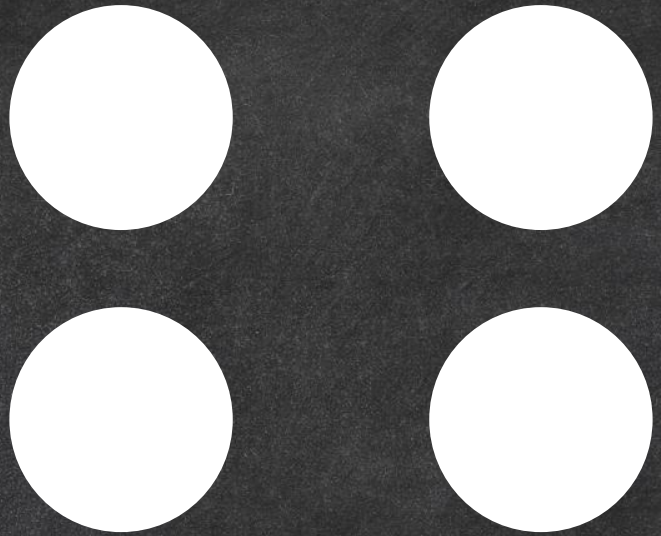


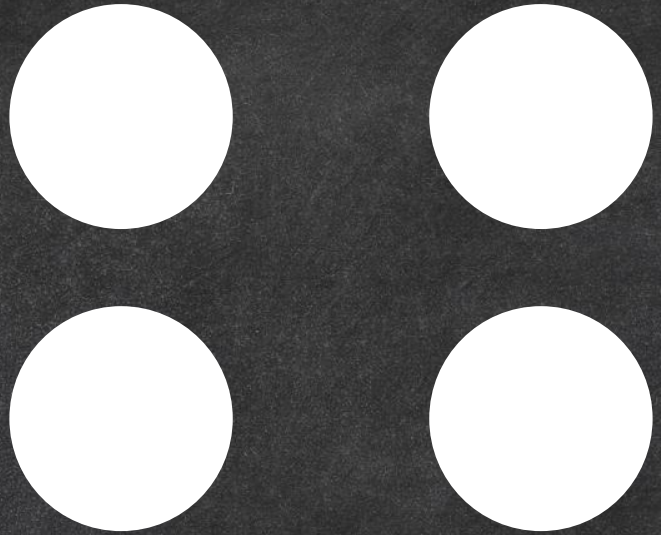




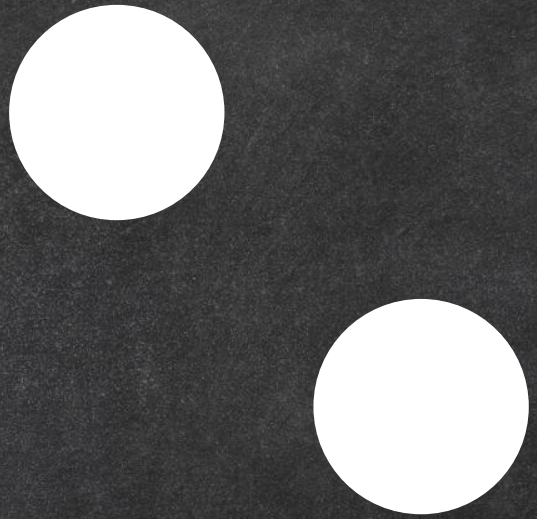




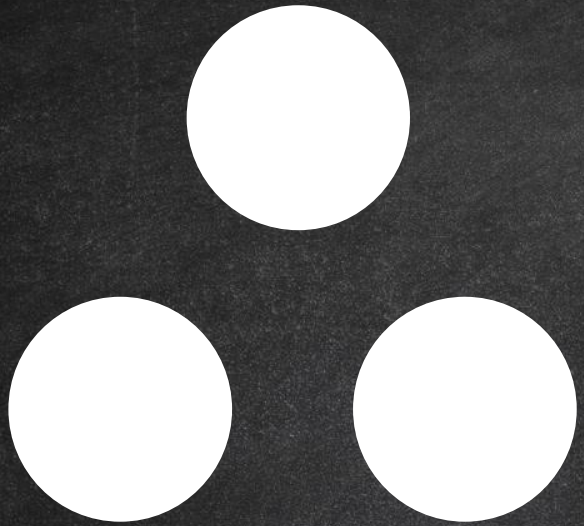


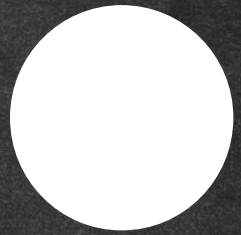


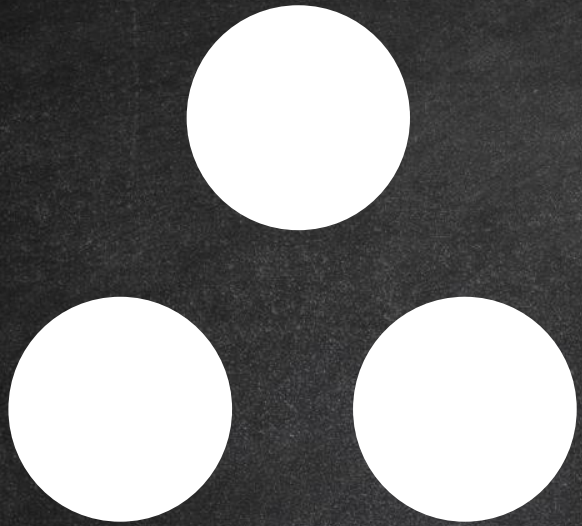


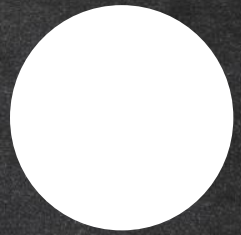




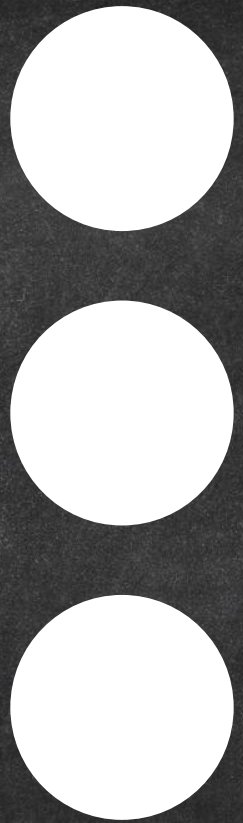


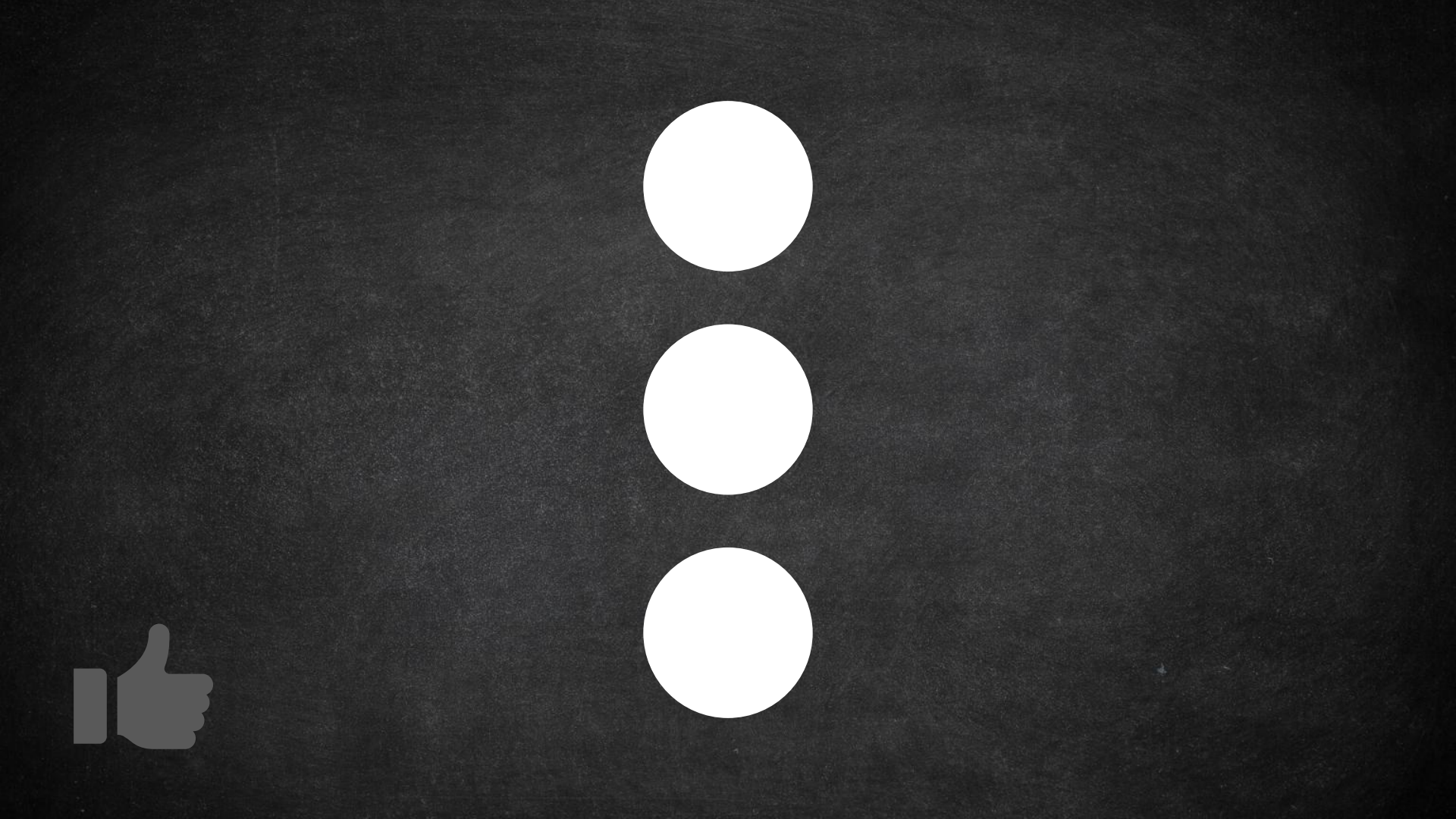






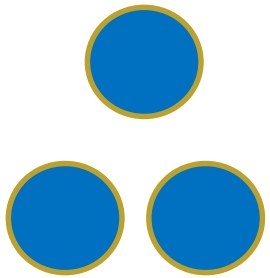


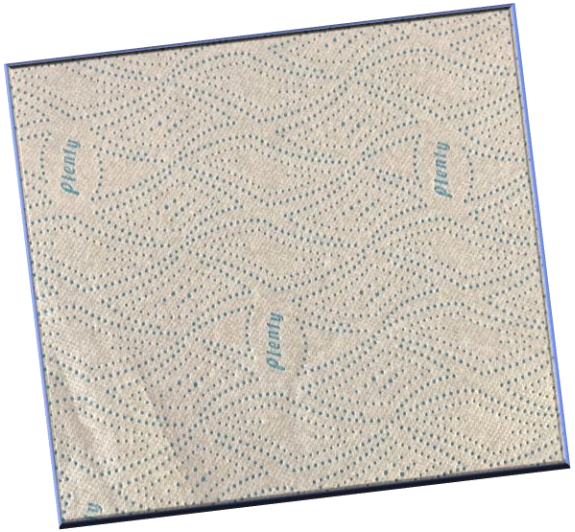




Play ‘3 or NOT 3?’ with counters

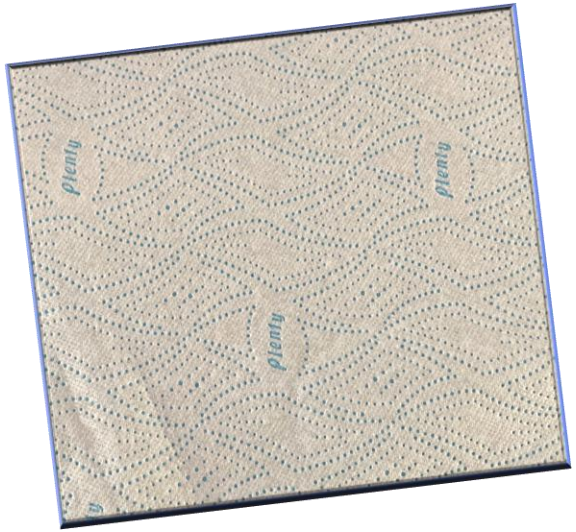
You will need 5 counters and something to cover them.





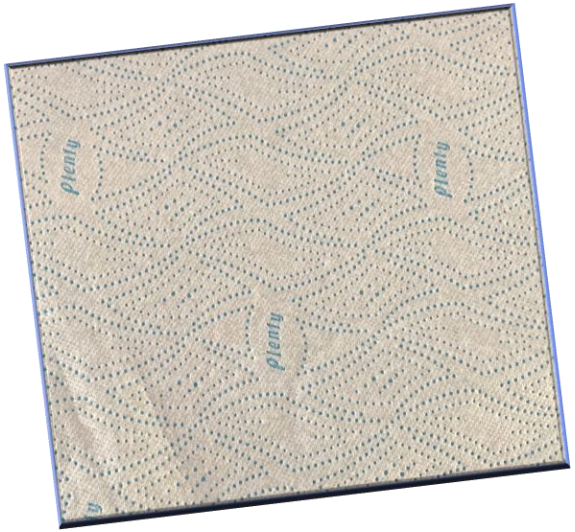
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Grown-ups, hide some counters under the towel.



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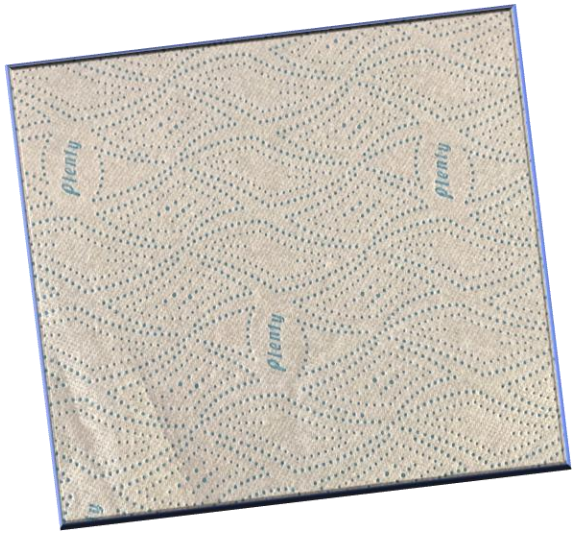
Reveal them quickly and ask your child…



3 or not 3?

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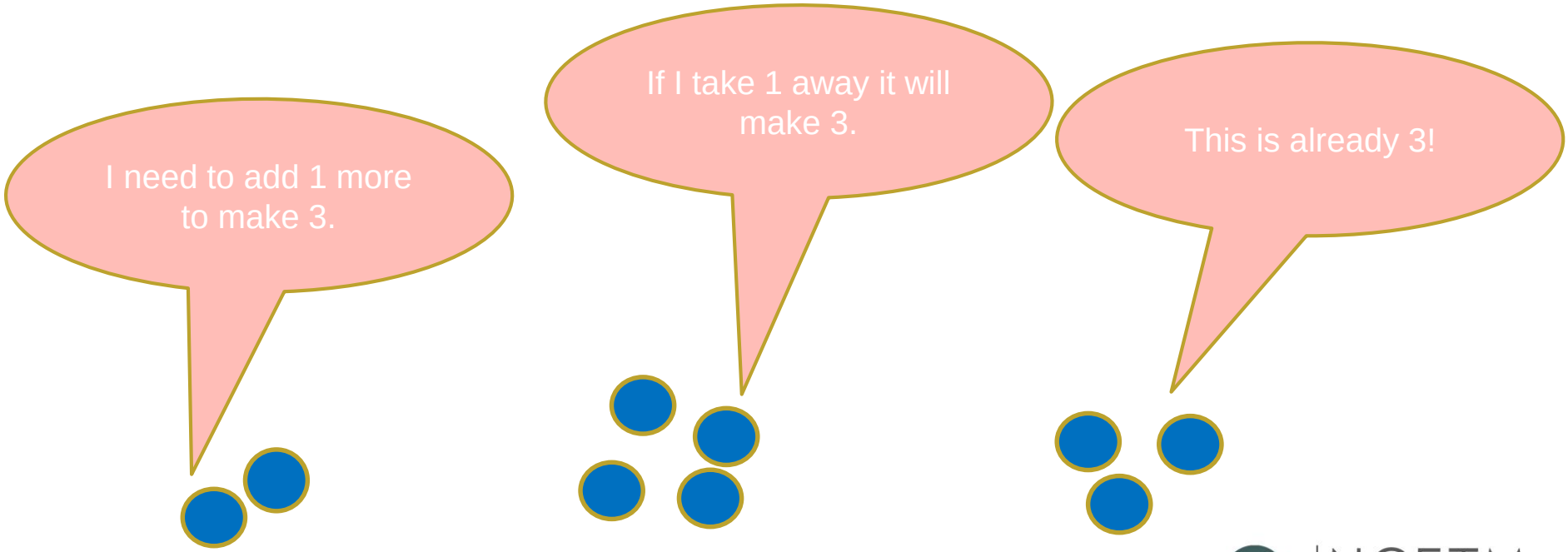
You can try this with different numbers…



4 or not 4?

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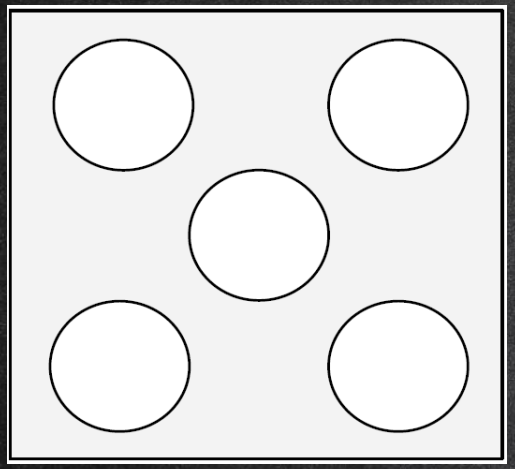
Now ask: ‘What do you need to do to make it 3?’

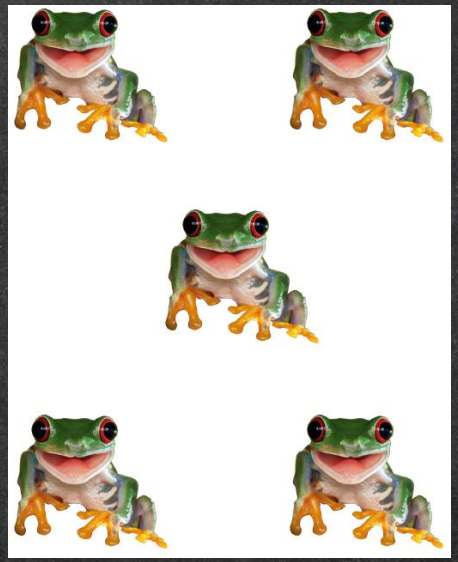


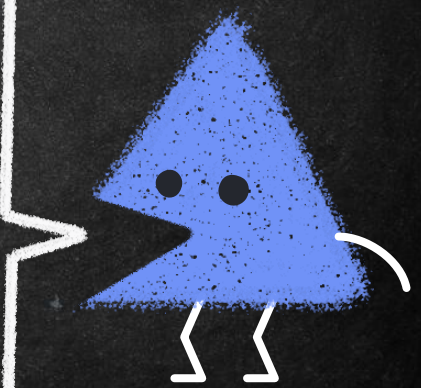
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Composition

5 is made of __ and ___, ___ and ___ make 5.



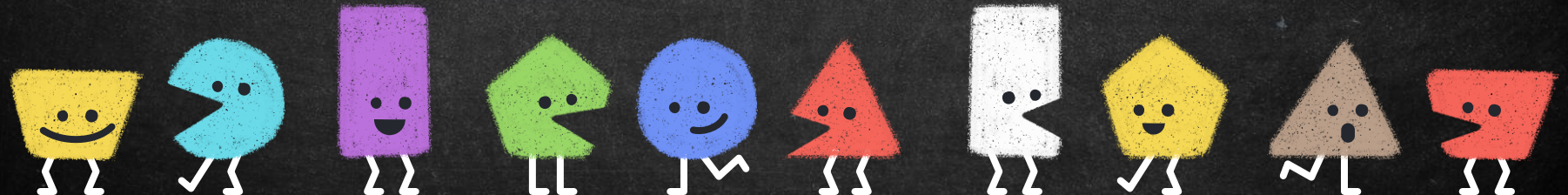






Comparison

Understanding that comparing numbers involves knowing which numbers are worth more or less than each other



Comparision

Sorting

Collections to sort and compare including objects which are identical, which include objects of different kinds or sizes

Fair/Unfair

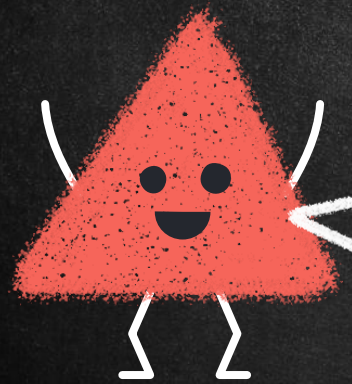
Sharing objects/food/toys. For example: showing two boxes, one with 5 sweets and one with 3 sweets. Which box would you pick? Why?

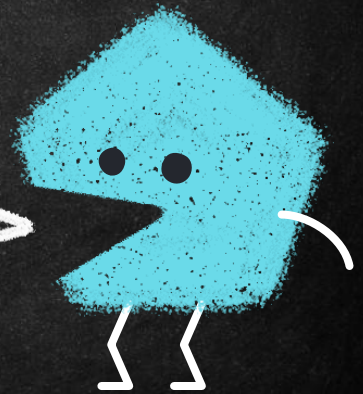
One More/One Less

Making predictions about the outcome in stories, rhymes and songs if one is added to, or if one is taken away.

Bath Time

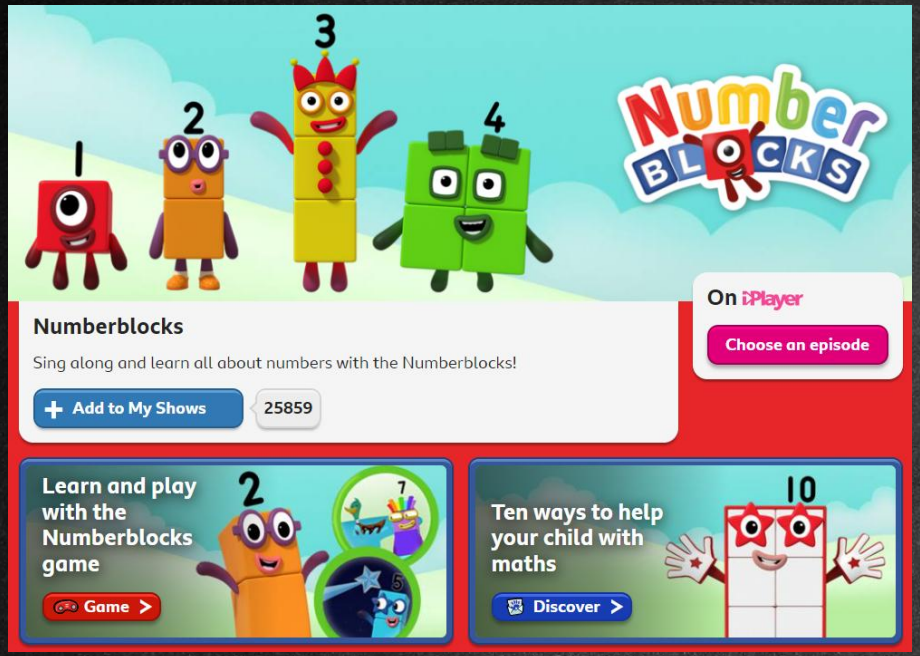
Provide different containers in the bath, and ask your child to investigate how many cups it takes to fill them.

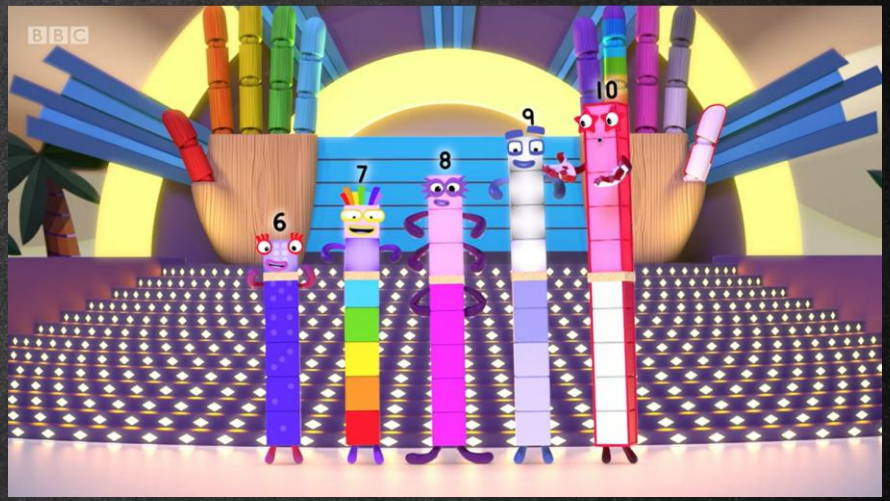


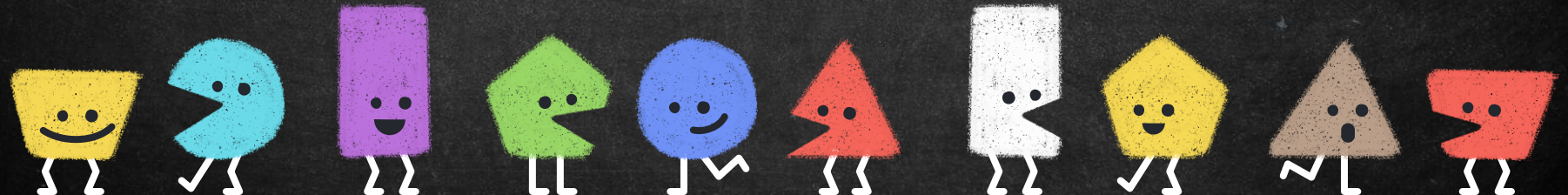


Numberblocks

CBeebies







Let's Explore the outside area!









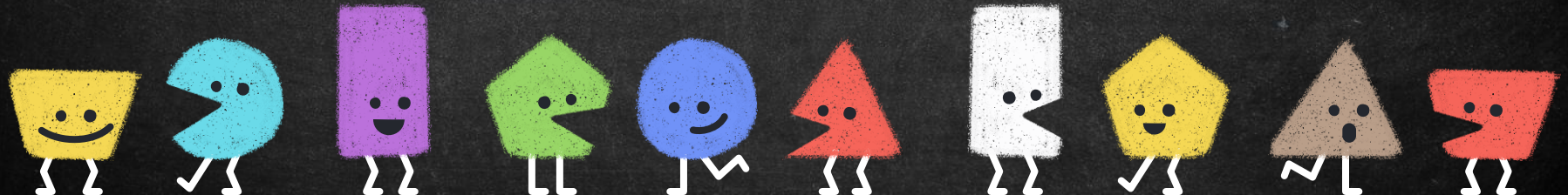




Pattern



Looking for and finding patterns helps children notice and understand mathematical relationships



PATTERN

Odd and Even

Can you spot odd and even number patterns



Outdoors

Make a repeating pattern with things you find out and about





Wrapping Paper

Can you spot repeating patterns when wrapping presents. Can you make your own pattern using sponges or Xmas cutters



Stamps or Stencils

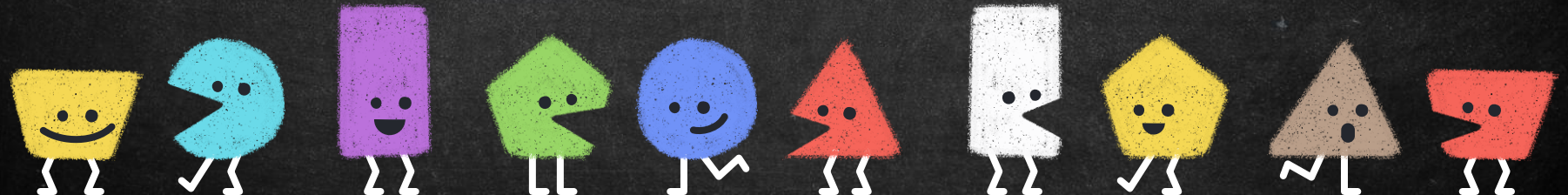
Practice making repeating patterns with stamps, stickers or stencils. Can children copy your pattern? Or continue it?





Shape and space

Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking



Shape and space

2D/3D shapes

Talk about shapes as you play with them using words like ‘sharp corner’, ‘pointy’, ‘flat’, round’ or ‘straight’.

Acting

Using language of position and direction (in, on, under, up, down and across) act out stories like ‘We’re Going on a Bear Hunt’.

Construction

When building towers ask: ‘How did you make that tower?’, ‘Why were those blocks good ones to use?’ ‘Why didn’t you use those shapes?’

Designing

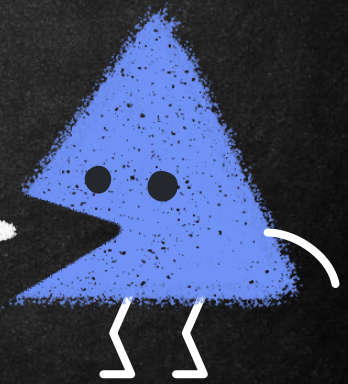
Drawing or making simple maps with ‘landmarks’, e.g. houses and trees

Same? Different?

Play or model building and then drawing representations of these relationships. Including a 3D object from a different viewpoint. ‘Can you draw your construction from above, looking down on it?’

Shape Hunts

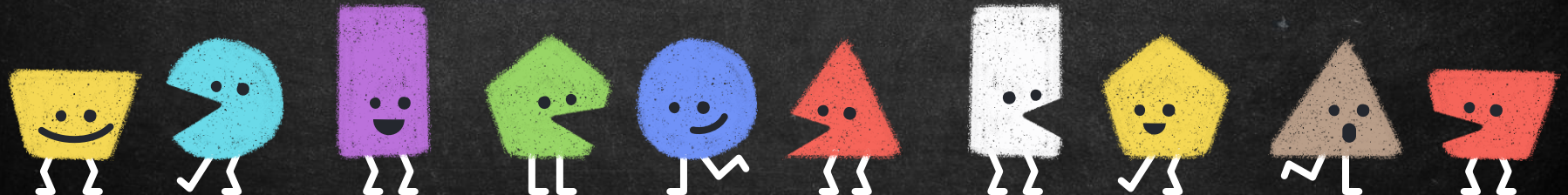
When you’re out on a walk, see which shapes you can spot. Such as, rectangular doors, circular tyres, square windows.



MEASURES



Comparing different aspects such as length, weight and volume, as a preliminary to using units to compare later



Measures

Dough Modelling

Making snakes of different lengths and asking ‘who has made the longest snakes? The shortest?’ ‘Whose snake weighs the most?’

Packing Bags

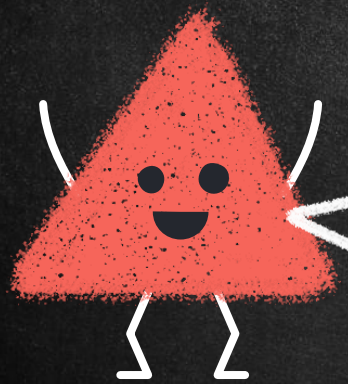
Packing a shopping bag, making sure the lightest items do not get squashed by heavier things

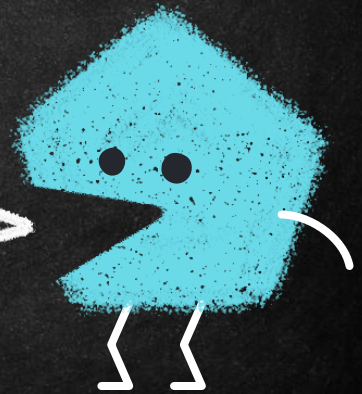
Tidying Toys

Putting toys into specific containers and asking, ‘Is it full?’, ‘Is it empty?’, ‘Will that toy fit in that container? Why/why not?’

Bath Time

Using different sized containers and cups in the bath, explore how much liquid you can pour into each one. Are they different shapes but can fit the same amount?





Key Points

- Start with a positive mindset
- Use maths talk every day
- Subitising up to 5 things – seeing numbers without counting
- Count everything and anything
- Play maths games together
- Watch out for shapes

Thanks!

Any questions?

Ask your child's class teacher or contact Miss Hines or Mrs Patten via the school email/office

