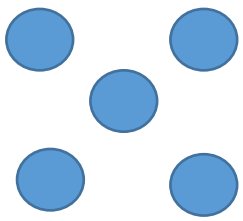
Recognising small quantities without counting – subitising.

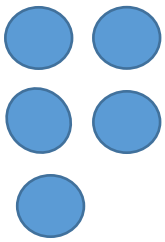
All children are born with the ability to see the difference between 1 and 2 objects. Playing games with real objects which can be moved around and arranged in different ways can help them to develop this skill to quickly recognise and name “how many” for collections of 3, 4 and 5 objects.

Children can use buttons; pebbles, pine cones, shells etc. to make and count different collections of objects and explore quantities.

Once they have had lots of practice using real objects to explore different quantities, children can move on to cards or dice games to practise subitising, for example Ludo or snap using playing cards.

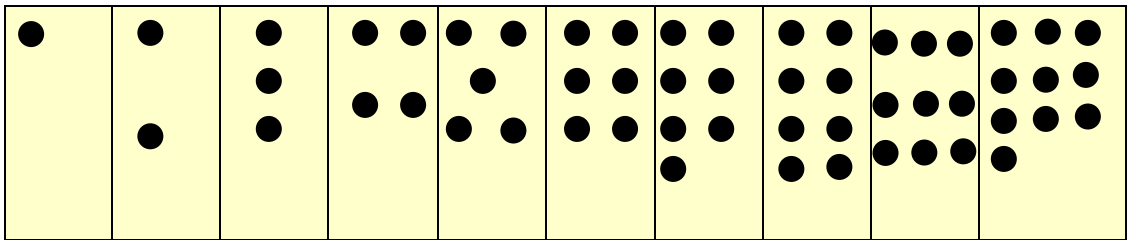
Through games children learn to recognise the familiar pattern in dice or playing cards, but they also need lots of opportunities to see quantities arranged in different ways. For example here are some collections of 5:



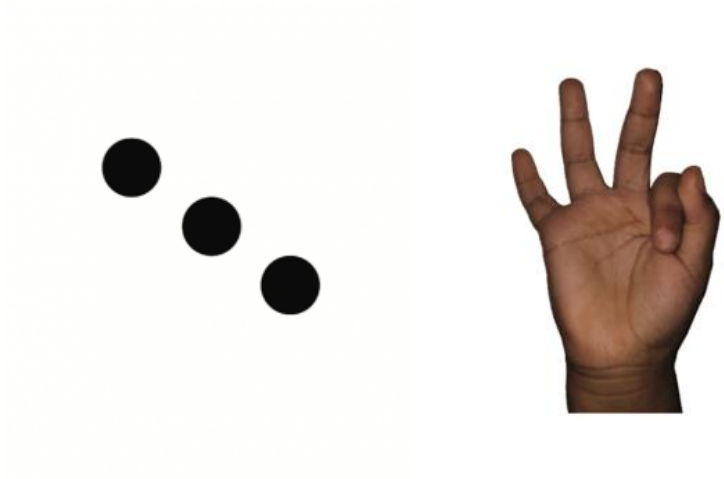


Quantity Cards

Quantity cards have pictures of small sets of dots or finger patterns, showing numbers from 1 to 10. Quantity cards require children to look at a picture and say how many they “see.” Most children aged 4 -5 can recognise three fingers without counting, “one, two, three.”



Matching quantities such as dots and fingers develops ideas about equivalence. Though these two cards look quite different, they are the same in one important way — they represent the same number.



(Pictures from Erikson Institute Early Maths Collaborative).

The Erikson website has lots of ideas for using quantity cards to help develop children’s ability to recognise quantities without counting:

https://earlymath.erikson.edu/new-focus-when-playing-card-games/

You can download sets of quantity cards from the website or print off the number lines attached to this document. These can be used to help children recognise numerals – they can count the dots to check if they are not sure. To develop their sense of recognising quantities you can cut off the numerals. Children can mix the cards up then match the numerals to the dot cards.

Children can play this fun game on the Jack Hartmann music channel to say the numbers they see: https://www.youtube.com/watch?v=PSlA-u_ABmU

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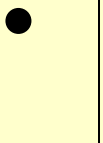	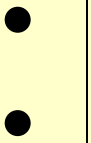	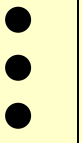	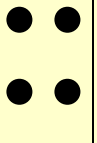	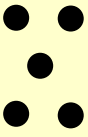	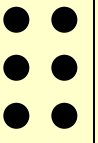	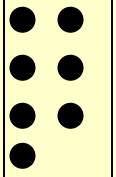	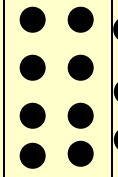	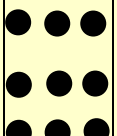	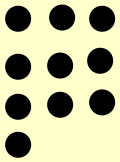

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				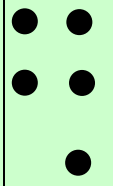	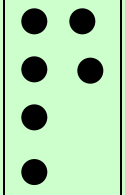	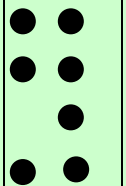	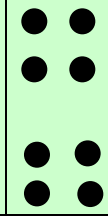	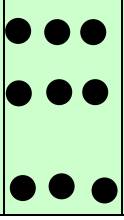	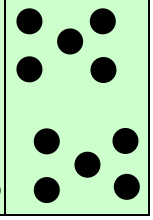

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	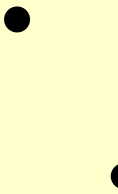	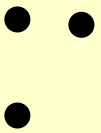		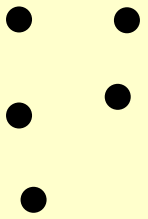	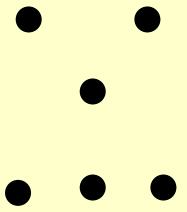

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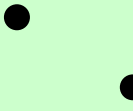
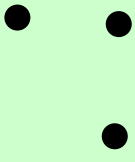
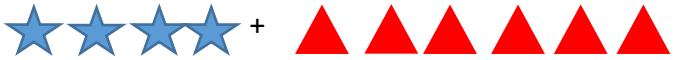
					

Play number recognition games using 10 frames (like the one below)

https://uk.ixl.com/math/reception/count-on-ten-frames-up-to-10

Help your child to develop skills in addition using small objects, e.g. 2 different colours of buttons/glass beads/2 different pasta shapes etc. Using the 10 frame below, how many different ways can they make 10? e.g. 

What are the children learning?

I am developing a sense of size and amount by observing, exploring, using and communicating with others about things in the world around me. MNU 0-01a

I have explored numbers, understanding that they represent quantities, and I can use them to count, create sequences and describe order. MNU 0-02a

- Recognises the number of objects in a group, without counting (subitising) and uses this information to estimate the number of objects in other groups.

-Checks estimates by counting.

-Demonstrates skills of estimation in the contexts of number using relevant vocabulary, including less than, more than and the same.

-Explains that zero means there is none of a particular quantity (and is represented by the numeral 0).

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-Identifies 'how many?' in regular dot patterns, for example, arrays, five frames, ten frames, dice and irregular dot patterns, without having to count (subitising).

-Groups items recognising that the appearance of the group has no effect on the overall total (conservation of number).