

Putting Maths into Practice at Home



The following tasks provide opportunities to learn from our children as well as with them. Below are four playful tasks that you can try at home to spark mathematical chats and mathematical thinking. The first three tasks help children explore numbers and quantity, and the last task focuses on developing skills of maths language and visualisation.

Task one: How many inside?

What is the rule about counting? We count everything once and we stop when we have done so. The last number we say tells us how many we have (the quantity).

You will need a tin or cup and a collection of small toys, buttons or stones.

Drop 4 stones into the tin one at a time, while the child listens carefully. Ask how many they think are inside the tin? Why do they think that? How sure are they? Tip the tin out and check. This game can be varied by dropping irregularly, or by using quieter objects.

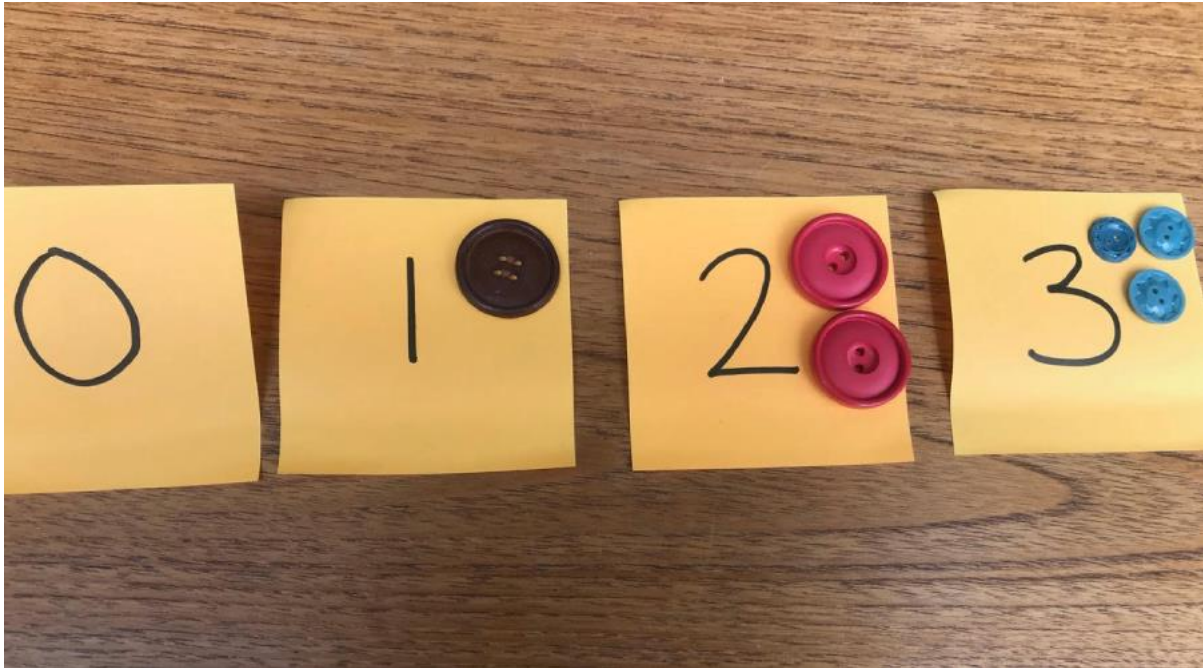
Later when they get good at this, ask “How many is that so far inside?” and then dropping two more on top of the original amount, supporting the child in counting on from a small amount: “Four... Five, six.” The important idea is to draw their attention to the last number we say telling us how many there are.

Task two: What’s missing?

You will need 6 pieces of paper and a collection of small bricks, stones, buttons or similar. Clearly write the numbers 0,1,2,3,4,5; one on each piece of card.

Together with your child, organise the 0 – 5 number cards in order from the smallest (0) to the largest (5) number. Take it in turns to hide your eyes whilst the other player turns a card over (or removes a card and closes the gap – harder!). Player one opens their eyes and works out which number is missing.

To extend this, you could shuffle the cards around after removing one or play with numbers 0 to 9. But remember it is best to begin any game at a slightly easier level than you think your child can manage. It is easy to introduce a challenge with their agreement! You could match an amount of bricks to each number, and play the hiding game by removing one brick – what has changed? How do you know?



Task three: Pairs

You will need 6 identical cups, and a collection of identical counting tokens (you could use coins, beans, LEGO bricks, or whatever else you have handy). This works like the card game 'Pairs', where you have to find a matching pair, this time we find a matching amount. Place 1 penny under each of two of the cups, under another two cups place 2 pennies, under another two cups place 3 pennies. Then, mix the cups up.

Take it in turns to turn over two cups. If the amount of pennies underneath is the same, the player keeps the pennies, if not, they replace the cups. You can, of course, extend this to include matching two groups of 4, when you have enough cups.

Task four: Make it the same

You will need a book to act as a screen between the two of you and two identical sets of bricks or blocks (not too many) and perhaps a toy car and a play person. Share these out between the two of you to make sure you each have the same collection.

One person builds a small scene with their bricks and toys, secretly, behind the screen. When they are ready, they tell the other person how to make one exactly the same as theirs. Only they are allowed to look over the screen to see how the builder is doing (and correct them if necessary). You can only touch your own bricks.

When they think it is the same, remove the screen. Examine what is different – or not. Then swap roles!

These tasks are meant to be playful and to be enjoyed together. When your child asks to repeat one you know you are winning. Aim for that!

Taken from Dr Helen Williams' research.