

# 10 ways playing cards helps children with maths

Fancy a quick game of cards? Studies show cognitive benefits to play and card games teach children new strategies for using mathematical information, categorising patterns, sequencing and sorting. Last but not least, this is numeracy practice the whole family will enjoy (though things might get a bit competitive... beware!). Kate Yelland asked maths teachers and experts why sitting down with a pack of cards and a primary-school child is definitely playing your cards right.

As parents we all know if you can turn learning into a game, you're onto a winner. And you can often further your child's skills without them even knowing! Cheap, simple and no doubt tucked at the back of one of your drawers, you might be surprised just how much a pack of playing cards can help give your child's maths a boost. Here are 10 reasons why.

## 1. Playing cards builds number confidence

"Children have the enjoyment and pleasure of playing a game without being faced with a worksheet," explains Mike Ollerton, member of the [Association of Teachers of Mathematics](#). "Children often feel pressure with maths to get the answer right. **Card games change children's perception of learning about numbers in a positive way**, help take the fear out of maths and allow them to build their number confidence without worrying about making mistakes."

## 2. Playing means learning by experience

The draw of a screen, for pleasure or learning, is enormous these days for children. So getting back to basics with a tangible pack of cards provides children with a **practical and tactile experience**. "Children are learning without realising it and exercising a whole host of other skills too, from turn-taking and communication to problem solving and team work," says Mike.

## 3. Games encourage fluency

Traditional games like 'Patience' help children **recognise and play with numbers**. "The main aim of the new maths curriculum is not only for pupils to learn number facts but to become fluent with them, too, and card-playing allows children to do just that," explains Mike.

## 4. A pack of playing cards offers endless possibilities

A simple pack of cards allows children to **practise many different elements of maths, from core skills like addition and subtraction to more complex concepts like fractions and probability**.

Alongside conventional card games there are many which have been adapted to help children develop a particular skill like strengthening number bonds or getting to grips with positive and negative numbers, for example.

## 5. Playing cards will improve memory

Well-liked games like 'matching pairs' are a great way to enhance memory. **Children learn how to retrieve information in a relaxed setting while developing patience and perseverance**. Get grandparents involved, too (according to the National Institute of Ageing, card games help stimulate the brain cells and keep the neural pathways functioning!).

## 6. Cards help develop quick thinking skills

Card-playing will undoubtedly **speed up your child's maths thinking brain** – a key skill required for academic tests such as SATs. “Just like working in a shop before the age of computerised tills, a few weeks of game playing means their mental maths could seriously go through the roof!” says primary teacher Sarah Poulton.

## 7. Card games are a great alternative for learning times tables

Learning times tables by rote is no-one's idea of a good time, but playing a game of ‘War’ might just be! To play simply deal a pack amongst the players. Each turns over two cards, multiplies them together and shares the answer – the highest number wins all the cards played. (To make this a simpler game for younger children, get them to add the two cards together instead of multiplying.)

## 8. Cards encourage number talk

“Cards provide a great talking opportunity for children to get to grips with mathematical language in a non-threatening way.” explains Sarah. “I often give children two cards to discuss with a partner and ask them to tell me what’s the same, what’s different and what they notice about them. The answers can vary from 'They're different colours' to 'One is a factor of another', depending on the children's age and ability. By taking the fear out of maths, you're training them to ultimately think these kinds of ideas through by themselves.”

## 9. Playing cards teaches new strategies (and it's great fun!)

Children can learn new strategies for **storing and retrieving information, categorising patterns, sequencing and sorting** by playing cards. It will also quicken up their reflexes – both mentally and physically. Just think how quick off the mark you need to be to reign supreme in ‘Snap’! Plus it's fun! But cards can be challenging and highly competitive – think Rummy and Pontoon (Black Jack) – and someone has to lose, so beware!

## 10. Maths card games encourage risk-taking

Children like to be right, which is why they're often reluctant to suggest an answer they're not 100 per cent sure about in maths lessons. “Playing a game like Pontoon, where you have to make a decision based on the cards you already have, will encourage children to make a judgement, using the number facts they already know,” explains Sarah. “A card game simply provides a much safer way for children to take a risk.”

## Maths card games to play now

Ready to put the theory into practice? Start with [Number Bond Snap](#), perfect for Y1 and Y2 children learning their [number bonds](#) to 10 and 20.

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