

Getting started with play-based learning in early years

Transcription: Mathematics in play-based learning

Interviewees:

Dr Alison Borthwick

Early Years Practitioner and specialist

Dr David Whitebread

Developmental Cognitive Psychologist and early years expert


What kind of mathematical skills do children develop in play?

Alison Borthwick Mathematical play allows learners to be curious which helps them to develop their reasoning and their problem-solving skills. It also supports them to be resilient and persevere in tasks, to take risks, to spot patterns and to make connections. It's also a really good opportunity to listen out and develop mathematical language. So it is such a rich opportunity for all of those attributes and characteristics that we are looking for within mathematical development.

David Whitebread Some lovely research about children, for example, engaging in play-based shopping and all sorts of benefits in terms of memory, talking about early mathematical principles and so on and engaging in conversation. All of this is really valuable. But it's given a real purpose within a play-based context.

How can families help children to develop mathematical skills at home?

Alison Borthwick: Strong communication between families and school is key and, if at all possible, we really want to maximise opportunities that our learners can have to learn mathematics at home and at school.
So I've got a few suggestions for you.
So, choose a number, let's choose the number 5, what 5 things can we see, can we gather 5 things inside, can we gather 5 things outside, are they the same, are they different? What do you notice?
Encouraging number talks wherever possible, so for example instead of saying can you hand me some apples, being able to say can you pass me 2 apples. Just adding a little bit of that numerosity, that number sense into the instructions.



Perhaps saying to families when you go shopping why don't you try and spot numbers, go on a number hunt, what numbers can you see as you're out and about or perhaps in the shops.

Thinking about other opportunities around the home and around outside as well. So making sure that we can have things where perhaps filling containers, whether we're in the bath or in the sink or in the shower or in the stream. How many containers does it take to fill from one to another, talking about who has more, who has less, counting all the time. Counting is so important. Just making sure that we have that strong communication. Maybe just giving them two or three things they can be doing with their own learners while we have that link going on. That would be amazing.

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