

Using Schema Theory to Help Practitioners Understand the Conceptual Development of Mathematics

Pen Green Centre for Children and Families

Overview

An **evidence-informed professional development programme** designed to deepen practitioners' understanding of schema theory and its connection to young children's mathematical development. The programme enables practitioners to recognise, support, and challenge children's emerging mathematical thinking through play.

Aims

Children who lack high-quality, first-hand play experiences often do less well in mathematics at the end of Reception. This programme equips practitioners with the theoretical and practical tools to:

- Understand schema theory and how it supports conceptual mathematical development.
- Observe children's play to identify schematic patterns.
- Plan play-based opportunities that extend and challenge children's mathematical learning.

Programme Outline

The programme includes:

- Two practitioners (or one for childminders) attending all sessions and carrying out a study on one key child.
- **Two days of training** (one face-to-face and one online).
- **Four online drop-in sessions** to reflect on observations and deepen understanding.
- **One final online review session** to revisit and refine an action plan.
- Engagement in feedback activities such as surveys and interviews to support programme evaluation.

Training Dates

Training Day 1 - 14th January 2026

Check in 1 – 28th January 2026

Check in 2 - 18th February 2026

Check in 3 - 11th March 2026

Check in 4 - 18th March 2026

Training Day 2 - 25th March 2026

Support Provided

- A comprehensive resource pack with theoretical summaries, observation templates, and exemplars from practice.
- Ongoing guidance from the Pen Green Centre team throughout the programme.

Benefits

For practitioners:

- Increased understanding of schema theory and how it links to mathematical learning.
- Greater confidence in identifying and responding to children's schematic play.

For children:

- Support from responsive adults who understand how their play connects to mathematical thinking.
- Stronger foundations for continued mathematical learning.

Booking

Please complete the short form in the following link to book your place

[Schemas and Maths – Booking Form – Fill out form](#)