

Title	Specialist knowledge for teaching mathematics (TA) programme		
Phase	Primary	Work Group Code	NCP 20 - 25
Project summary			
<p>The purpose of the programmes in this project is to support teaching assistants (TAs) in developing specialist knowledge for teaching mathematics, thus enabling them to understand, teach and support pupils in the maths classroom.</p> <p>This is a continuation of NCP19-24 where core materials were shared, trialled and evaluated.</p> <p>The programme is based on the four core modules for primary:</p> <ul style="list-style-type: none"> • Number sense • Additive reasoning • Multiplicative reasoning • Fractions. <p>These modules are each designed to be delivered over three hours. This year an additional module has been developed as an introduction (two hours), which sets the scene for the current maths teaching landscape.</p>			
Rationale			
<p>It has long been recognised that maths teaching is enhanced when the teachers are confident about the subject matter. Seabourne's work over the period of 2004-06 found that SKE courses led to 'improvements in subject knowledge, attitude, understanding and confidence'. Gibson, O'Toole, Dennison & Oliver's (2013) report on SKE courses across all subjects in which SKE is offered finds that levels of subject knowledge and confidence in the subject are dramatically enhanced on completion of SKE course.</p>			
Intended outcomes			
Professional learning			
<ul style="list-style-type: none"> • Participants will enhance their maths subject knowledge with an emphasis on the key structures in each mathematical area covered e.g. <ul style="list-style-type: none"> - Understand the key elements that form number sense, including precise language, structures and representations - Understand the forms of addition and subtraction, including the precise language, structures, and representations - Understand the forms of multiplication and division, including the precise language, structures and representations - Understand the forms of fractions, including precise language, structures and representations. 			
Practice development			

- Participants will review their practice as a result of the sessions and make specific adaptations to impact on pupil outcomes.

Pupil outcomes

Pupils will:

- have greater exposure to mathematical representations and structures and will start to be seen to use these independently in their own work
- be able to explain their maths and mathematical thinking using appropriate language
- demonstrate a positive attitude towards maths, being willing to have a go, persevere, and share their mathematical ideas

Intended participants

These programmes are designed for TAs who are supporting maths, and who would like to develop their specialist knowledge for teaching maths. This may be particularly relevant for new TAs or TAs that have not received maths-specific training.

Features of the work group

There are a core set of units and materials for these programmes.