

## 'We Are Mathematicians' at Ormskirk Church of England Primary School

### Explore

*Low floor, high ceiling anchor task.*

### Guided Practice

*Practise and explore today's learning with support and guidance.*

### Workbook

*Independent tasks relevant to the learning objective.*

### Journal

*Independent recording of the lesson's mathematical concept.*

When appropriate, the image in the Explore task is shared in isolation for pupils to discuss what they notice and wonder. Children then work collaboratively, as a class or with a partner, to unpick, solve and discuss. Misconceptions and common issues identified from the previous lesson can be used. Lots of opportunities for talk, using precise mathematical language in full sentences, allow pupils to demonstrate their thinking and take ownership of the strategies they have been taught. This is supported by the use of different representations to reveal the underlying mathematical structures. Teachers facilitate identifying efficient methods, informed by the Master. As the learning sequence progresses, this will become more child-led.

Teachers use their professional judgement to identify the level of scaffold needed for children to access the Guided Practice. Scaffolding should decrease throughout the Guided Practice so that pupils are prepared to work independently in their Workbook. Types of scaffold may include: concrete and pictorial representations, working with a peer, working with an adult or working in an adult led group. Teachers will take the opportunity to assess how secure the children are with the concept. Children do not move onto their independent work until they are secure in their understanding. This may result in some children working in a focus group with the teacher before moving onto their Workbook.

Children complete independent tasks and should continue to have access to scaffolds if needed. Teachers and teaching assistants should circulate the room. If children require support, they should complete this in purple pen. Children should have access to challenges which deepen their understanding of the mathematical concept. This may include: writing word problems of the calculations, drawing a diagram to represent the problem, checking using the inverse, showing an example of when this is not true, and identifying all possible solutions.

Maths Journals are used for reflections, jottings, pictorial and written explanations, as well as longer problem-solving exercises and challenges. Children should consider how they can 'Draw', 'Prove' and 'Explain' the underlying mathematical concept, having 'Shown' it during the Explore. This can take place during any part of the lesson. Whilst children are journaling, teachers and teaching assistants should circulate the room asking questions to prompt deep mathematical thinking.

### Planning

Maths lessons should be drawn from Maths No Problem! The NCETM PD Materials should be used for additional small steps or to recap prior learning. Where possible, the NCETM's Ready to Progress materials should be used to support same day intervention.

### What would we hear?

Children engaging in collaborative discussion, using precise mathematical language, speaking in full sentences. Stem sentences may be used to support pupils in making generalisations about key mathematical ideas. Teachers and teaching assistants will ask questions which prompt deep mathematical thinking rather than recalling procedural steps. Children will seek the advice of their partner during lessons prior to seeking the support of teaching assistant or a teacher. The impact of Mastering Number sessions will see pupils recall number bonds and multiplication bonds with automaticity.

### What would we see?

All children will demonstrate a positive attitude to Maths, holding the belief that they can achieve in Mathematics. Children working in mixed attainment pairs, with all pupils accessing the same work, but with different levels of support where needed. Children should have access to, and be confident working with, a range of manipulatives which can be used to represent mathematical structures. Children should be confident drawing representations such as bar models and part-part wholes. Working walls should include representations of current methods and strategies.

### Assessment and Feedback: Same-day intervention

Where possible, KS2 children should self-mark their Workbooks. Teachers should use outcomes from this to inform which children require same-day intervention or pre-teaching to enable pupils to work more independently and with more success in the next lesson.