

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

Mastering Number Flow Chart

Revisit

Revisiting prior learning from Mastering Number sessions.

Teach and Practise

Introducing new content.

KS1:

- "Convince me" of prior learning e.g. composition of number.
- Generalisations recapped.

KS2:

- Oral patterns used to recap recount products e.g. $5 \times 9 = 45$ as "5, 9, 45). The smallest factor is always said first even when the larger factor is presented first.
- Generalisations recapped e.g. through sorting activities.

KS1:

- Reception, Year 1 and Year 2.
- Use of rekenreks.
- Numberblocks representations.
- Focus on additive relationships.
- Subitising, exploring the composition of numbers (including odd and even numbers), counting, ordinality and cardinality, number facts and arithmetic, comparison.

KS2:

- Year 4 and Year 5.
- Use of gestures, arrays and unitising, Going for Gold practice cards.
- Focus on multiplicative relationships.

Planning

Mastering Number sessions are taught using the NCETM's Mastering Number program. The Mastering Number planning is comprised of two distinct programs: the KS1 program is for pupils in Reception to Year 2, whilst the KS2 planning is for pupils in Years 4 and 5.

What would we hear?

Pupils engaging in collaborative discussion, using precise mathematical vocabulary and speaking in full sentences. Teachers and pupils will use stem sentences for:

1. Generalisations: Through experience students notice the mathematical structure and are able to generalise. **E.g. Doubling a whole number always gives an even number.**
2. Explanations: While explaining, describing, proving etc. pupils use the correct terms. **E.g. I know ... because ...**
3. Structure: Alongside representations students are guided with structures stem sentences to develop conceptual understanding of the structure. **E.g. There are ____ ____. This is ____, ____ times.**

Choral response: a 'my turn your turn' approach to modelling and reciting stem sentences helps pupils to learn new mathematical language and understand key concept.

What would we see?

KS1: Use of rekenreks

KS2: Use of gesture

Assessment and Feedback

Use of whiteboards for formative assessment and identifying individual pupils for support. Successful application of number bonds and multiplicative relationships in Maths lessons. In addition, pupils in KS2 use 'Going for Gold' cards to practise recalling the 36 core multiplication facts. When pupils can recall facts with automaticity, they move to their 'Gold bags'.

Further optional experiences are available on the planning for those pupils who need extra experiences to explore the concepts in greater depth. This can include repeating the activities in the main session or creating their own examples of the concepts taught using practical equipment. Teacher Prompt Cards are also useful tools to support this.