

Mastering Number – School Overview at William Austin Infant School



At William Austin Infant School, we are actively participating in the NCETM's Mastering Number Work Group through our local **Enigma Maths Hub**.

Reception teacher leader: Mrs Salsbury
Year 1 teacher leader: Mrs Jones
Year 2 teacher leader: Mrs Stanley



Over time, through participating in Mastering Number sessions, our children will:

- Develop **fluency** in calculation and a **flexibility** with number that exemplifies **good number sense**.
- Be able to **clearly communicate** their mathematical ideas.
- Make **good progress** towards the Early Learning Goals and Key Stage 1 year group expectations.
- Demonstrate a willingness to '**have a go**.'

Features of Mastering Number sessions:

Our Mastering Number sessions...

- Are **inclusive** with **all children** securing learning linked to the same concepts in an interactive and engaging manner.
- Are about **accessible learning** which **enables all children** to have a **firm understanding**.
- Enable **all children** to develop **number sense** and **secure core knowledge**. This is similar to supporting pupils with phonics knowledge!

For all of our children to develop depth in understanding, we want them to...

- *Become mathematically observant.*
- *Look for relationships between numbers.*
- *Explain their mathematical thinking.*

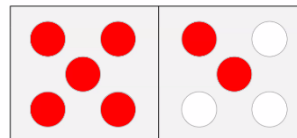
What you will see in some of our Mastering Number sessions:

- Activities which are **accessible** and enable **all children** to become more **confident** and **competent**.
- Children being supported to acquire key facts and skills they can use efficiently, including in their other maths learning and/or lessons.
- **Quick finishers** working on **related/connected facts** rather than additional 'challenge' activities. This does not mean that our children are not challenged! They are focussed on the key learning.



Don't count.

Say the amount.



7 is made of 5 and 2



Principles underpinning Mastering Number at our school:

- Developing fluency makes more children better able to access the maths learning in their main lessons.
We do this by making connections between Mastering Number sessions and main lessons.
- Developing children's mindsets to look for mathematical relationships supports them with being able to make connections.
We do this by drawing pupils' attention to the relationships between numbers, so that they can also connect them with prior learning where it has taken place.
- Building confidence enables more children to make progress.
We do this by focussing on enabling all pupils to really understand small steps in learning.

Our Mastering Number sessions are organised with particular impacts in mind:

- A daily input of 10-15 minutes in addition to and to complement daily maths lessons – minimum of two times a week – to children in Reception, Year 1 and Year 2.

This enables all children to focus on developing, securing and embedding their fluency of known number and related facts. It is in these sessions we focus on building all children's confidence in becoming mathematically observant, noticing relationships and patterns between numbers. Year 2 have more of an opportunity in these sessions to link the representation of numbers to the symbolic, progressing on from their learning in Year 1.

- Adults drawing children's attention to intended aspects of learning, including in relation to particular mathematical structures.

This enables us to ensure children think deeply about the mathematics they are using.

- Adults scaffolding learning, including through use of different manipulatives, to help children secure understanding.

This enables pupils to develop a more secure understanding of core mathematical structures. Seeing the same concept alongside different manipulatives and pictorial representations often leads to children making their own connections, thus deepening understanding.

- Conceptual variation – transferring understanding of the same mathematical concept through use of different contexts.

When children transfer their learning through use of well thought out contexts that are varied, they become confident and make connections in learning.

- Linking the action and the thought – manipulatives secure understanding but are then visualised over time.

When children have enough experience of using manipulatives and seeing pictorial representations, they then begin to visualise them.