

### Mathematics and being mathematicians

At Wallscourt Farm Academy we are passionate about supporting all children to have a positive learning attitude towards mathematics. We are aiming to engender a culture where all learning is seen within the context of meaning and purpose. We talk with the children about being active agents of learning and members of their community. As such, when talking about maths at Wallscourt Farm Academy, we talk about “being mathematicians”. This forms part of our wider Tree of Learning for Life which takes the subject disciplines and marries them with dispositions of and for learning within and beyond that subject.

### Data headlines to set context - 2014-15

EYFS		Year 1
<b>Number On Entry</b>	<b>Shape Space and Measure On Entry</b>	<b>Mathematics - Autumn</b>
B40-60 - 71%	B40-60- 70%	R Secure - 72%
<b>Number Mid Term</b>	<b>Shape, Space and Measure Mid Term</b>	<b>Mathematics - Spring</b>
C/S 40-60- 93%	C/S 40-60 93%	On Track - Year 1 ARS - 79%

### Maths Mastery

We have been working alongside other schools within and beyond the CLF to explore maths mastery. We are taking some of the key aspects and learning from the Boolean Maths Hub, the Shanghai maths project and learning locally, nationally and internationally. We have engaged in a range of CPD looking at mastery approaches. In Year 1 we are using the Singapore Inspire Maths Text books, as part of a textbook trial. However, we are clear that this is within the context of other ways of planning, teaching and assessing young children in mathematics. Key aspects from maths mastery are deployed in EYFS and Year 1 – including keeping the class together, going deeper, keeping a concept simple.

### Intelligent and deliberate practice

As described under the following headings, there are a range of significant strategies that have been employed by the team at Wallscourt Farm Academy which allow us to develop and enhance the learning and teaching in mathematics.

### Whole class + small group – pace and depth + flexibility

Adopting some of the key concepts of mastery in mathematics, including starting a piece of learning with the whole class, each day, with all being taught a concept, and then smaller groups exploring, consolidating and taking the learning deeper can be seen in planning and monitoring across EYFS and KS1. This may result in key points being developed, repeated and explored at depth – which may look different in each class/group and different day to day and through the course of the year.

### Maths mastery group – not there yet and going deeper

The mathematics lead in Year 1 is working with a core group of children in Year 1, daily, following and prior to mathematics sessions to explore possible misconceptions and follow-up and consolidate any learning from whole class teaching and including a pre-teach element to these sessions to support all children to access the whole class learning.

**Maths meetings** – these take place regularly throughout the week and allow pupils the opportunity to develop fluency in mathematics.

### **More able – support for going deeper**

Stretch and depth for our children, based on those who grasped concepts through a cycle, is planned and provided to ensure children are able to further develop skills, concepts and aptitudes in their mathematics. There has been a focus on exploring different contexts, having a range of opportunities to apply and a focus on reasoning.

### **Fluency, reasoning and problem solving - planning**

Throughout the course of the year we have been supporting children across EYFS and Year 1 to develop the key aspects of fluency, reasoning and problem solving. Deliberate practice around children describing their thinking with sentence starters - I know this because ...., why/why not, agree/disagree discussions to promote reasoning and talking in sentences, right from Reception and developing into KS1.

### **Line of enquiry – e.g. 21....and regular mathematical challenges in Child Led**

To compliment the regular maths meeting sessions, and to ensure children have an opportunity to enquire, explore and problem solve in mathematics we plan in times to investigate mathematics – e.g. exploring everything we know about the number 21.

### **Mathematics – Family learning**

We have taken the opportunity over the course of the last year to support families to understand and support the learning that takes place in terms of mathematics at Wallscourt Farm and at home and in the community. Two maths workshops, one for adults only and one Family learning has helped families to begin to understand the way mathematics is organised, taught and fostered in school and to explore how they can support at home.

### **CPD – significant investment**

Over the course of the year, there has been significant investment into continuing professional development in mathematics. This has largely focused on Year 1 – with the Inspire Maths Textbook Trial, combined with breadth of the subject CPD led by Clare Christie through the Ashley Down Teaching School. In addition, the Principal, the EY and Phase Lead and the Developing Maths leader attended the CLF Maths Hub Launch, and the Shanghai Teaching sessions.

### **Development of calculation policy development – CLF**

Working with others across the CLF and the Ashley Down Teaching School, the mathematics calculation policy has been shaped and crafted to take into account the new Age Related Standards. There is a clear progression within the planning of mathematics. This overview adds to the range of tools and documents to support the planning, teaching and assessment of mathematics at Wallscourt Farm Academy.

### **CLF Conference**

The EYFS Phase Leader and the Principal led a session at the CLF Conference in November, alongside a colleague in the CLF. This was an opportunity to share best practice in mathematics at Wallscourt Farm Academy and to learn from others across the federation.

### **Use of manipulatives**

There has been a significant investment in a range of models and manipulatives including Numicon and Cuisenaire and we have thought carefully about how and when these resources are used to support and deepen pupils understanding in mathematics.

### **Blank paper, storytelling, BCC developments**

Working alongside a lecturer in Early Years, we have been exploring using storytelling in mathematics, and supporting children to explore recordings and jottings in mathematics on blank paper. This sits alongside the CPA approaches of mastery and supports children to develop confidence and independence in mathematical recording.