

## Maths Statement: Intent, Implementation and Impact Template: Part 1

### Maths Intent (the What) and Implementation (the How):

#### How we ensure an ambitious Maths curriculum – a mastery curriculum:

Our Maths teaching is underpinned by the belief that all children need a **deep understanding of the mathematics they are learning**. This is what we mean by Mastery. There is one set of Mathematical concepts for all. We ensure all pupils have access to these concepts and the rich connections between them. Mastery is, therefore, the aim for all children, hence we have an ambitious Maths curriculum for all.

Mastery is a continuum. We believe mastery is only going to be achieved when **more time is spent on key concepts** that are revisited and reviewed. This allows for the development of depth and sufficient practice to embed learning. Devoting time to key concepts enables us to:

- Represent concepts in lots of different ways (multiple representations).
- Teach the processes, then allow the children to apply their knowledge, increasingly rapidly and accurately. (Following a process / procedure won't enable mastery; applying a process will!)
- Commit key facts to children's long term memory.

Therefore, at an age appropriate level, we expect the vast majority of our children to be able to:

- **Use mathematical concepts, facts and procedures appropriately, flexibly and fluently**
- **Have a sufficient depth of knowledge and understanding to reason and explain mathematical concepts and procedures and use them to solve a variety of problems.**
- **Recall key number facts e.g. number bonds and times tables with speed and accuracy and use them to calculate and work out unknown facts.**

#### How we ensure challenge

We ensure that the majority of pupils will move through the curriculum at broadly the same pace. However, based on good AfL, our teachers make decisions about when to progress children, based on the security of pupils' understanding and their readiness to progress to the next stage. This does not mean that 'we hold children back' and that all children access the same questions and same activities all of the time. Pupils who grasp concepts rapidly are challenged by 'going deeper', being offered rich and more sophisticated problems before any acceleration through new content. Differentiation still takes place although it will often be through the same concept, posing different questions and problems for 'rapid graspers' to extend their thinking. Mastery strategies such as 'Prove it, Compare and Make a Conjecture' are used. 'Deepening' through differentiation is important in all year groups. Those who are not sufficiently fluent with earlier material, consolidate their understanding, including through additional practice, before moving on. A ceiling is not put on children's learning and flexible grouping is adopted based on pre-assessments.

#### How we ensure a well sequenced, progressive curriculum

We teach the National Curriculum 2014. Pupils gain understanding of the mathematics relevant to their year group so that it is built upon in subsequent years.

- Our **high level long term map** for Maths outlines in year groups, what units of work, will be taught and revisited at what time of the year and for how long. This is the basis for our well sequenced and progressive curriculum.
- Our **Progression documents** provide an overview of the development of concepts across the primary years. These allow subject leaders to have an overview of the progression of concepts over time and allow class teachers to know what children have learnt previously and how the learning continues subsequently.
- Our **Calculation policies** outline in more detail which concepts and procedures / strategies will be introduced and then developed.
- Our **weekly planning** is based on Maths No Problem which is tailored to the needs of our children. We use many concrete resources throughout the school to ensure children are exposed to multiple representations of a concept. This is part of our CPA (Concrete, Pictorial and Abstract) approach.

Whilst we teach Maths in progressive distinct domains (units of work) we recognise that Maths is an interconnected subject. Therefore, we encourage children to make connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. Children also apply their mathematical knowledge across the curriculum, and particularly in Science, where relevant.

We regard talk in Maths as important and introduce mathematical vocabulary in an age appropriate way. We encourage children to verbalise their thinking; our teachers ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

### **We make time to teach Maths:**

Children in EYFS have a daily mathematical focus. 1 session per day of 20 minutes, whole class teaching. Mathematical concepts are also embedded through continuous provision and 1:1 adult focused activities.

Children in KS1 and 2 have a daily Maths session lasting for 60 mins / 1 hour and 15 minutes.

If children are not reaching the expectations outlined below we intervene quickly by giving extra support. We give catch up support by focused intervention sessions in small groups as well as TA support for pre or post teach. The content of these sessions is determined by on-going gap analyses and our in depth knowledge of each child. These sessions are additional to our daily Maths sessions.

In addition, we have daily 'Maths meetings' to ensure daily review of key concepts. These retrieval sessions ensure mathematical declarative and procedural knowledge is secure in the long term memory. These daily sessions also focus on the recall of identified key facts. These progressive, specific facts are non-negotiables that every child should know by the end of each term in each year group.

### **We build a skilled team who can teach Maths:**

Every member of our teaching staff has accessed PDET training by our Maths Consultant on each domain in the Maths curriculum during the previous academic year. This has focussed on Maths subject knowledge and pedagogical subject knowledge. Our Maths Subject Leader has also accessed PDET CPD this academic year. We have carried out in house CPD sessions based on the aforementioned training and have carried out 1:1 coaching for identified staff. We also have a Maths specialist (MAST) teacher who is our maths coordinator.

Leaders in our academy prioritise the teaching of Maths. Maths is identified as a key priority on our Academy Improvement Plan. Leaders monitor the provision of Maths through learning walks in Maths sessions as well as book scrutinies. The impact of this provision is further developed through the analysis of (i) end of year cohort data (end of KS1 and 2 Maths) and (ii) individual pupil attainment and progress throughout the year (on going assessments).