**Sandringham Federation Mathematics Curriculum**

**Intent, Implementation & Impact**

**Intent**

Our schools thrive on ensuring that Mathematics is engaging for all, in order for all children to develop the vital skills needed to progress through Primary school and giving them a solid foundation for high school. As well as this, we believe that teaching children vital mathematics skills will help them to access everyday thinking and give them confidence to apply their skills to everyday life. As, Mathematics is the foundation to understanding the world around them.

**Implementation**

Our Mathematics curriculum follows the aims of the National Curriculum for Mathematics 2014. The use of White Rose progression and small steps, which have been mapped along-side the National Curriculum have been closely used in order to create the curriculum coverage across the school, and the weight of each unit is also based on any weaknesses that have appeared through end of year assessments, KS2 SATs, e.g.

Class teachers use yearly overviews to help plan their lessons, based on the needs of their class as the year progresses; using test outcomes as one piece of data to help plan lessons and also interventions for those who need it. The use of QLA’s is a helpful tool used to support class teachers to know who needs support and who needs extending within each Mathematical area of the curriculum. Support includes following our CPA (Concrete, Pictorial, Abstract) approach to support the teaching and learning of these skills, with particular emphasis on ensuring manipulatives are accessible to all children, where needed.

Assessment is made using assessment for learning approaches to give teachers an idea of who has grasped new concepts taught and those who need further support. Weekly plans are then adapted accordingly.

The focus on developing fluency within each skill is at the forefront before being able to then apply our knowledge of the skills taught to problems and reasoning based tasks. There is also a fluency focus once a week based on arithmetic. Fluency skills are also practiced via online platforms, such as Sumdog.

Teachers use quick activities to embed quick recall of fluency skills on a daily basis via the Number of the Day. This includes various different ways to represent a given number, give a percentage of, round it (depending on what skills is needed within each class) and the questions asked are frequently changed.

Problem-solving and the opportunity to apply the skills taught are given in lessons, whether on a whole class basis or independently and then reviewed, as a class, or through collaborative learning.

As a Federation, we are developing the Maths Mastery approach to our maths curriculum and have started putting various parts of mastery into place (use of manipulatives, careful intervention planning, differentiation through support rather than a separate activity, children accessing problem-solving/reasoning in every, if not most lessons).

The ability to be able to know times tables, up to x12, by the end of year 4, is a big focus across the Federation. We use the Tackling Tables programme to practice recalling tables quickly. Each child, from Year 2, are also given a times tables book to practice tables, one at a time, and tested once a week also to help ensure retention of each table too. They are encouraged to learn them in order, in a random order, and the division to match. Children are encouraged to learn their tables at home, which enhances the partnership between home and school.

In KS1, the same approach is also given for learning number bonds.

**EYFS within the Sandringham Federation:**

The use of the White Rose materials are strongly used to aide learning in maths for EYFS, with particular focus on the interactive resources.

EYFS use a 'planning in the moment' approach to the curriculum. This encourages children to talk about their learning, therefore encouragement of vocabulary and ensuring everyone takes part is evident. There is lots of opportunity for mathematical talk, time to revisit and rehearse skills which enhances learning. It also boosts children’s confidence by focusing on the oracy side of the Mathematics curriculum and the opportunity to mark and make their maths is chosen independently by them. Adults play a key part with their careful scaffolding extending mathematical vocabulary effectively. Maths evidence is observed by the teacher and recorded using Tapestry. Opportunities for the maths skills taught are also available through their continuous provision to further enhance their learning.

**Special Educational Needs**

Some children experience learning difficulties, which affect their progress in Mathematics. Class teachers will inform the SENDCO if they are concerned that a child may have underlying learning difficulties. Some children then receive SEND support.

Those who need extra support but are not highlighted as SEND, or on the school’s watchlist, may also receive extra support via interventions, if they need it. This is then recorded using an Intervention tracker.

Specific interventions/support we have available are:

-First Class @ Number

-Power of 2

-Quality First Teaching and TA support

-Many manipulatives

**Impact**

The impact on our children is clear: progress, sustained learning and transferrable skills. With the implementation of the Mathematics Curriculum, it gives children confidence by the time they finish Primary school, especially with the key skills needed.

In EYFS, their curriculum develops the use of oral rehearsal of skills and using vocabulary confidently to aid understanding, which then helps develop foundations to progress into KS1 and beyond.

As a result of the Federation’s use of the Tackling Tables programme, Sumdog and our new Individual tables book approach, confidence in the children’s ability to recall their tables, and at speed will grow. This then, as a result, helps them access other areas in mathematics with ease, without the barrier of working out their tables, for example, when using written methods or finding multiples and factors.

Through our rigorous approach to our planning and assessment approaches (via PiXL), we are able to plug at gaps in learning that appear, support those that need a little more than the lessons provided, and also helps the children to progress from fluency to problem-solving and the ability to apply skills learnt.