

Subject Area – Mathematics

Believe-Achieve-Belong

**Intent**

*"Mathematics is, in its way, the poetry of logical ideas," Albert Einstein.*

**The curriculum at St Michael and All Angels Catholic Primary School promotes curiosity and a love and thirst for learning. It is ambitious and empowers our children to Believe, Achieve and Belong.**

**At St Michael and All Angels Catholic Primary School, we are mathematicians!**

**Our intent is to nurture and develop our pupils to become numerate children who are confident using and applying skills and mathematical understanding through a wide range of situations. We are dedicated, through the high-quality teaching of mathematics, to providing our children with the essential life skills of:**

- understanding number and calculation
- problem solving
- enquiry
- reasoning

**We aim to create an environment which encourages an enjoyment and interest in maths, as well as developing the understanding of new mathematical concepts. We strive to teach a fun but focussed curriculum, which supports all children to reach their full potential.**

**We have adopted a mastery approach to teaching maths and believe that every child can succeed when provided with the tools to enable them to understand key concepts, reason mathematically and make connections to understand the world around them. We have been developing this across school for the past 4 years, working alongside the North West 3 Maths Hub to embed this approach within school.**

**Implementation**

**In the Early Years it is the first opportunity to see how a child interacts with their environment and how the environment influences them. Staff follow the Early Years Foundation Stage (EYFS) Statutory Framework which aims to guide children, to make sense of their physical world and their community by allowing them to explore, observe and find out about the building blocks to have a deep understanding of numbers and relationships between number and pattern in the world and community – this is the first step of becoming a mathematician.**

**Maths at St Michael and All Angels Catholic Primary School is taught through daily maths lessons and key facts and skills are also revisited during Mastering Number sessions in EYFS and KS1 and through daily Basic Skills sessions in KS2. Our lessons are based around the progression and small steps approach of the White Rose scheme but are adapted to meet the needs of our children, ensuring depth of fluency, problem solving and reasoning skills through use of a wide range of other resources, high quality planning and teaching to ensure progress. Our children are provided with many engaging opportunities to work mathematically and make connections in their daily lives. Following the mastery approach, the majority of children will work through the curriculum objectives at broadly the same pace, however, are supported and challenged appropriately through questioning and deeper thinking, not through working on different tasks or moving on to new content. We spend longer on key mathematical concepts and ideas to give all learners the practice and depth of understanding that they need.**

**At St Michael and All Angels Catholic Primary School we now also use the Ready To Progress Criteria provided by NCETM to ensure that teaching from year to year is progressive and we are not unnecessarily repeating learning. Targeted intentions are also being used to support this.**

**Our 5 Part lesson structure allows the children to recall prior learning, understand and use rich mathematical vocabulary, develop mathematical fluency, make connections between mathematical concepts and reason and problem solve. All children across school will be taught to effectively use manipulatives and representations to support and deepen their learning. We use the same approach across school to model, practise and embed the understanding and use of mathematical language. We aim to provide many opportunities for children to remember and evaluated their own learning, applying their skills across the curriculum.**

### **Accessibility and Equal Opportunities**

**Please refer to the school's Equal Opportunities Policy, Accessibility Policy and Special Educational Needs Policy for further information.**

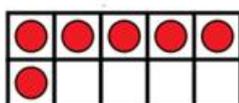
**All pupils have equal rights to access learning opportunities across the whole curriculum irrespective of ethnicity, religion, gender, disability or social circumstances. A wide**

variety of strategies can be used to ensure that teaching meets the needs of different groups of pupils. These include:

- Differentiating lessons (through use of resources, tasks, level of support, outcome);
- Using a range of teaching styles to match the range of learning styles represented in a typical class;
- Ensuring the classroom environment is safe and secure and accessible for all.

**Here are some of the manipulatives and apparatus that your child might use to support their learning:**

Tens Frame



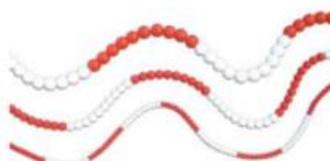
Rekenrek



Numicon



Bead Strings



Sticks



Dienes



Place Value Counters



Cuisenaire



**We use both formative and summative assessment information in Art and Design lesson. Our curriculum has key objectives and we have set out our expectations around these.**

**We assess pupils' depth of understanding frequently and use this to forecast as to whether pupils are on track to meet our curriculum expectations. This process provides an accurate and comprehensive understanding of the quality of education in Mathematics.**

### **Monitoring**

**The Subject Leader will monitor progress according to the monitoring timetable. Subject leaders are expected to monitor in the following way over the course of the academic year:**

- **Learning Walks;**
- **Co-coaching;**
- **Pupil Voice;**
- **Book scrutiny including learning logs;**
- **Planning scrutiny;**
- **Lesson drop ins**

**Adequate notice should be given and provide a clear focus for any activity that is due to be undertaken. The outcomes of any monitoring activity are feedback to the SLT and staff through the relevant meetings.**

**Progress should be clear over the course of each topic.**

**Through the high- quality teaching of mathematics, we believe our children will:**

- **Enjoy maths and have a 'can do' attitude toward their learning, showing self-confidence and independence when working mathematically;**
- **Understand and use mathematical vocabulary as a tool for explaining their ideas and reasoning about the world;**
- **Become fluent with a varied range of mathematical ideas.**

- **Be clear in their knowledge of key facts and how these can help them as tools for understanding and solving more complex problems.**
- **Use their understanding of mathematical concepts confidently and with purpose.**
- **Be confident to use their mathematical skills to think logically and solve problems.**

**At St Michael and All Angels Catholic Primary School our children are mathematicians and who can Believe-Achieve-Belong in the local and global world now and in the future as they move to KS 3 and through their life journey.**