

# ST THOMAS MORE CATHOLIC PRIMARY SCHOOL

## MATHEMATICS POLICY

**At St Thomas More Catholic Primary School, we have due regard for our duties under the Equality Act 2010. Through the delivery of the Mathematics curriculum, we will ensure that we: eliminate discrimination, advance equality of opportunity and foster good relations.**

From September 2014, a New National Curriculum has been in place. The staff at St Thomas More Catholic Primary School have reviewed and adapted the Maths curriculum in light of these changes.

### **The main changes to Maths include:**

- Fluency and mastery is a key part of the new curriculum
- To develop our pupils' mathematical reasoning and appreciation for the importance of Maths as a life skill
- Ensuring that our pupils are 'secondary ready' upon leaving St Thomas More Catholic Primary School
- Having a deeper understanding of Maths through using concrete, pictorial and abstract representations.

### **Rationale**

Mathematical skills are essential to everyday life. Our aim is to maximise the individual potential of children's understanding and knowledge. Teachers encourage children to develop skills using an interactive approach, providing opportunities for them to experiment with their ideas, test the reasonableness of their answers and to question what they do not understand. We believe in developing the children's fluency and mastery of the Maths curriculum.

### **Aims**

Our aim is to teach Mathematics based on The Primary framework and 2014 new curriculum through daily lessons and where possible to foster links with other curriculum areas.

Regardless of gender, ethnic origin or ability - 'Every Child has the Right to Learn' (UNICEF), we specifically aim to:

- Develop a positive approach to the learning of Maths, by providing challenge, personal attainment and a sense of achievement
- Have confidence to express, question and discuss ideas when undertaking activities
- Develop skills of mental arithmetic in order to speed up calculations, check answers and foster an understanding of relationships in Maths
- Use a practical/investigative approach where possible, in order to strengthen understanding of patterns and relationships
- Provide a range of pictorial, concrete and abstract representations in all year groups and for all abilities to enhance learning
- Use Maths to explore the environment/everyday situations and to communicate with others
- Develop mathematical vocabulary and use equipment including I.T.
- Develop a sense of pride in the presentation of work
- Meet with the Economic Well Being element of the Every Child Matters agenda

## **Curriculum Planning and Content**

The staff and Governors have agreed to use the renewed primary framework as a basis for planning to ensure continuity and progression. To further ensure continuity and progression, all classes follow our agreed Calculation Policy which is available on the school's website. Policies are reviewed regularly throughout each academic year and detailed weekly plans are by year groups in line with this.

## **Methods of teaching and learning**

In order to ensure the aims, objectives and key features of the Primary Framework are satisfactorily met; the following methods are employed:

- An interactive approach, with opportunities to exchange ideas, questions and explanations
- Personalised targets to help them to understand where their areas for development are
- Children are encouraged to take part in self-assessment and reflective and responsive marking
- Purposeful and investigative questioning and activities are employed, using real life problems where possible
- Emphasis on explicitly teaching and developing skills of mental calculation drawing upon recall of facts as well as a range of strategies
- Visual stimulus either by demonstrating or modelling explanations and/or making use of a range of concrete and pictorial resources including interactive White Boards
- Clear explanations of expanded written methods and standard algorithms, once the skills of mental calculation are developed
- Differentiation is achieved by either complexity of calculation, opportunities to explore in greater depth, resources provided or teacher/adult support given
- Children with additional needs are closely monitored and where necessary intervention put in place to consolidate any gaps in learning
- Provision maps are used throughout the school to record intervention for all pupils regardless of ability e.g. children working at greater depth, children working at expectations or children working towards expectations

The methods of written calculations used at St Thomas More Catholic Primary School are in line with The Primary Framework and New Curriculum. (See calculation policy)

## **Problem solving and reasoning**

Pupils are given the opportunity to apply their knowledge to varied and increasingly complex problems across all areas of mathematics in all year groups. They are taught to develop their use of mathematical language to enable them to reason mathematically – for example when evaluating problems, selecting strategies and developing and describing solutions. Problem solving and reasoning are incorporated into weekly plans, supporting the new curriculum emphasis' in fluency and mastery.

## **Assessment and Recording**

The following methods of **statutory** assessment are carried out and are recorded on the end of year report to parents:

- Foundation Profiles completed - ongoing through the year
- Year 1 Phonic Assessment
- Year 2 SATs
- Year 6 SATs

Termly 'Rising Stars' assessments are also carried out in addition to teacher assessment and pupil progress meetings are held regularly throughout the year to ensure progress is made.

### **Marking**

Children are encouraged to understand that sometimes there is more than one answer and that the process of problem solving is as important as the final answer. When marking work, teachers will use a tick to show correct answers and question marks to query others where necessary. Pink highlighters will be used to highlight successful areas and a green highlighter will be used to comment upon areas to look into further or to move learning forward. Verbal discussion will take place between adults and children with regards to misconceptions and ways to move learning forward. On occasions, children will be expected to identify their own areas for development, use peer and group assessment. For further information, refer to the school's marking policy.

### **Home-school Links**

St Thomas More Catholic Primary School recognises and values the contribution parents can make in their child's learning and encourages parents to be involved in their child's mathematical education. The home environment can provide a wealth of opportunities to mirror, reinforce and extend skills and concepts introduced in school. Homework is set as appropriate and reinforces concepts taught.

Curriculum evenings, Parent Evenings and Bring your Parent to Math sessions are opportunities for parents/carers to be informed of progression and to share activities and information with parents about children's learning within St Thomas More Catholic School. Appointments can also be arranged between a teacher and parent when necessary and a contact diary is also available.

### **Resources**

St Thomas More Catholic Primary School provide a range of resources such as:

- Target Math text books
- Information technology
- Calculators
- A wide range of practical equipment in each classroom with additional resources available in the communal maths cupboard e.g. beadstrings, numicon,
- BEAM We Can Do It
- BEAM Talk It, Solving It
- NCETM online resources
- NRICH online resources
- White Rose Maths online resources
- No Nonsense: Fluency in Number
- Teacher and pupil generated ideas and materials

**Review Date:** May 2020

**Next Review Date:** May 2022