ST PAUL'S CATHOLIC PRIMARY SCHOOL AND NURSERY
MATHEMATICS POLICY

Our Mission Statement

"Do everything with love."

(St Paul's first letter to the Corinthians 16:14)

This means that we will…

- *Show our love for Jesus in everything we say and do*
- *Respect everyone by recognising that God made us all different but equally valued.*
- *Strive for excellence and find ways to share, develop and celebrate our talents.*
- *Promote a safe, happy and enjoyable environment.*
- *Actively support our school, parish and the wider community.*

INTRODUCTION:

At St Paul's Primary Catholic School we see maths as an essential life skill. We are committed to ensuring that children have a positive and meaningful experience of mathematics from Nursery to Year 6. The new mathematics curriculum offers a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject**.**

PURPOSE:

The purpose of this policy is to describe our practice at St Paul's Catholic Primary school in Mathematics and the principles behind which this is based.

AIMS:

We aim to develop inquisitive and enquiring minds encouraging pupils to become self motivated, confident and capable in order to solve problems and investigations that will become an integral part of their future. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education.

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

TEACHING AND LEARNING:

FOUNDATION STAGE

The programme of study for the Foundation Study is set out in the EYFS Framework. Mathematics in the early years provides children with opportunities for develop their skills in counting, understating and using number, calculating simple addition and subtraction problems and to describe shape, space and measure. These are delivered through short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration.

KEYSTAGE 1 AND 2

Mathematics is a core subject in the National Curriculum. The programmes of study for mathematics are set out year by year for Key Stages 1 and 2 in the New National Curriculum (2014).

We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). Our medium-term mathematics plans define what we teach giving details of the main teaching objectives for each term. They ensure an appropriate balance and distribution of work across each term. These plans are kept and monitored regularly by the maths leader. It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives and expected outcomes for each lesson, and give details of how the lessons are to be taught.

We plan the activities in mathematics so that they build on the children's prior learning. While we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression into the scheme of work, so that there is an increasing challenge for the children as they move up through the school.

In all classes, children have a wide range of mathematical abilities. St Paul's recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies – in some lessons through differentiated group work and, in other lessons, by organising the children to work in pairs on open-ended problems or games. We use teaching assistants to support children, and to ensure that work is matched to the needs of individuals.

PROGRESSION IN CALCULATIONS:

At St Paul's, we have compiled a policy which identifies and recognises that children need a range of strategies which are efficient, accurate and reliable. Through our carefully developed policy children are given many examples of strategies which enable them to access confidently and fluently. (Calculation Policy 2014)

FORMATIVE AND SUMMATIVE ASSESSMENT

Assessment within mathematics occurs throughout the maths lesson, enabling teachers/teaching assistants to adapt their teaching/questioning to meet the needs of all children. Teachers use their professional judgement, knowledge of progression in maths and progress over time to gather evidence over time to judge a child's attainment towards end of year objectives. Pupil's work is marked daily and will identify what they have been successful in achieving and identifying any misconceptions, or errors in calculations. We also use a range of tests to support teachers in assessing progress in maths. These may include QCA papers, SATs papers or Rising Stars assessment sheets.

INTERVENTIONS AND BOOSTER GROUPS

At St Paul's we monitor children's progress regularly and identify support where it may be needed. This may include additional targeted support in class alongside their peers, in small groups, 1 to 1 discussions with a teacher or regular small group intervention support. In year 6 we have a teacher from a local secondary school working alongside a Gifted and Talented group of pupils as well as supporting pupils with their problem solving and enquiry based skills.

MATHEMATICS AND INCLUSION

At St Paul's, we teach mathematics to all children, whatever their ability and individual needs. Mathematics forms part of the school curriculum to provide a broad and balanced education to all children. Through our mathematics teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with additional needs, those with disabilities, those more able and those learning English as an additional language.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. Assessment against the National Curriculum end of year expectations allows us to consider each

child's attainment and progress. This ensures that our teaching is matched to the child's needs.

RESOURCES

Children have the opportunity to use a wide range of resources, such as number lines, number squares, Numicon, digit cards and small apparatus to support their work. Mathematical dictionaries are available in all classrooms. ICT is used in mathematics lessons for modelling ideas and methods.

CONTRIBUTION OF MATHEMATICS TO TEACHING IN OTHER CURRICULUM AREAS

The teaching of mathematics contributes significantly to children's understanding of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, in mathematics lessons, we expect children to read and interpret problems, in order to identify the mathematics involved. They are also improving their command of English when they explain and present their work to others during plenary sessions. In English lessons, too, maths can contribute: younger children enjoy stories and rhyme that rely on counting and sequencing, while older children encounter mathematical vocabulary, graphs and charts when reading non-fiction texts. It all supports and links well to other subjects including computing and science.

PERSONAL, SOCIAL AND HEALTH EDUCATION (PSHE) AND CITIZENSHIP

Mathematics contributes to the teaching of PSHE and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views. We present older children with real-life situations in their mathematics work on the spending of money.

SPIRITUAL, MORAL, SOCIAL AND CULTURAL DEVELOPMENT (SMSC)

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results. The study of famous mathematicians around the world contributes to the cultural development of our children.

PARENTAL INVOLVEMENT

During parents evening information is provided, sharing assessment of their child's learning with next steps identified to help support them at home. Alongside this parents are frequently invited in to share the learning of maths with their child.

MONITORING AND REVIEWING

The coordination and planning of the mathematics curriculum are the responsibility of the subject leader who also:

- supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject;
- gives the head teacher regular monitoring reports from which the strengths and weaknesses in mathematics can be evaluated, and areas for further improvement identified;
- uses specially allocated regular management time to review evidence of pupil's work.

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