



# Whitehall Nursery and Infant School

## Mathematics policy

### Introduction:

This policy statement outlines the teaching, organization and management of the maths taught and learnt at Whitehall Nursery And Infant School. This policy reflects the consensus of opinion of the teaching staff and should be read in conjunction with our teaching and learning policy, our marking and feedback policy and equal opportunities policy.

The implementation of this policy is the responsibility of all teaching staff and should be overseen and monitored by the subject leader and head teacher.

### Aims of the National Curriculum:

The school's mathematics policy is based on the National Curriculum for Maths (2014) which aims to ensure that all pupils:

- Become fluent in the fundamentals of Maths, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- 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 Maths 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.

### The Aims of Mathematics at Whitehall:

In our maths teaching we want to...

- promote enjoyment of learning and self-confidence through practical activity, exploration and discussion;
- promote confidence and competence with numbers and the number system;
- develop the ability to solve problems through decision-making, reasoning and challenge; working systematically, co-operatively and with resilience;
- develop understanding in the appropriate underlying skills, concepts and knowledge of using and applying Maths, number, measurement, shape, space and handling data;
- help children understand the importance of Maths in everyday life;
- develop the cross-curricular use of Maths in other subjects;
- enable the effective communication of ideas, experiences and questions, clearly and fluently, using accurate mathematical language to explain their thinking;
- provide the opportunity for all to experience a sense of achievement regardless of age or ability;

### Entitlement:

It is the responsibility of all teachers who teach mathematics to ensure that all pupils have access to the programme of study for mathematics at an appropriate level. The curriculum guidance for the Foundation Stage details the content of the mathematics curriculum in the Early Years.

### **Maths curriculum planning**

Early Years will follow the Early Years Curriculum to plan and use examples from White Rose Hub to support the development of early mathematics. In Year 1 and 2 they follow the White Rose Maths planning where the objectives have been broken down into terms and blocks to ensure children receive the full Maths Curriculum.

We have adopted a White Rose Maths approach to teaching because the structured, small steps of progression help the children to develop their conceptual understanding of mathematics. All pupils are encouraged to use concrete objects, pictorial representations, abstract thinking and reasoning in a fun and engaging way.

Our medium-term plans give details of the main teaching objectives for each term. They ensure an appropriate balance and distribution of work across each term. These plans are adapted to meet the needs of the pupils in their care and Year groups are encouraged to use the blocks of work as they see fit and best meet the needs of the pupils and this will include opportunities in KS1 for retrieval lessons especially around SSM.

It is the class teacher who completes the short term plans for the teaching of Maths to meet the needs of their class. These plans are completed using the school format, listing the specific learning objectives, expected outcomes and teaching activities for each lesson.

Wherever possible teachers will find opportunities to plan maths as part of cross-curricular planning, whereby we plan opportunities to ensure the children are using and applying their mathematical knowledge in other subjects and encouraging them to see the real-life links.

### **The Daily Maths Lesson**

Individual teaching styles are embraced at Whitehall however all children irrespective of the class they are in will receive a high quality teaching, learning and assessment experience all of which are grounded in the principles of: ***challenge, explanation, modeling, questioning and feedback.***

It is advised that number facts and mental oral work is taught or revised at the beginning of the lesson in order to promote the ability to recall and apply knowledge rapidly and accurately. Staff are encouraged to use ICT/visualizer or other resources to assist with the engagement of pupils during such activities.

During the main part of the lesson, pupils are taught as a whole class objective that meets the National Curriculum for their age. The teacher should carry out this whole class teaching, using a range of questions to develop their mathematical thinking and to provide justified evidence for their opinions and answers. Pupils should be given opportunities to explain their methods and develop a range of mathematical language, communication and reasoning as this is an important part of the learning process. Pupils may also have opportunities to work in groups, pairs and individually. However those pupils who need don't have the knowledge to take on current learning will follow teaching that meets their learning needs.

Direct teaching of the whole class is followed by a range of pupil activities to meet individual needs and varied in style in order to appeal to and cater for a wide range of learning styles. While pupils are engaged in these activities the teacher will focus on a specific group, and then use their professional judgement as to which children require further teacher input. Pupils should be encouraged to work independently, in pairs, in groups and with an adult. The skills for such different ways of working should be promoted in assisting a continually high level of expectation from the teacher. These activities should be steps that lead up to the children 'using and applying' their knowledge from the lesson to a problem solving activity. All activities are supported by concrete resources where appropriate.

The plenary part of the lesson is planned to give pupils the opportunity to review their work and to link it to past and future work as well as providing teachers with the opportunity to carry out informal assessments, address misconceptions and reflect on the progress made during the lesson. This session does not have to be completed at the end of the lesson; mini-plenaries can be planned throughout the maths sessions.

### **Equal opportunities/inclusion**

We provide equal access for all learners through curriculum balance, curriculum time and the use of resources. We strive hard and take all reasonable steps to meet the needs of all pupils, including those with special educational needs, those with disabilities, those with special gifts and talents and those with English as an additional language. Where applicable, children are provided with activities that provide additional challenge and children's Individual Plans incorporate suitable targets for their ability.

### **Resources:**

In all classrooms there is a dedicated Maths working wall with a range of resources such as number lines, hundred square, number patterns (including multiples) and mathematical vocabulary, that pupils can refer to in order to support their learning.

Each classroom also has a supply of basic materials which include counters, dice, multi-link, rulers, number cards, digit cards, place value cards, Numicon, Cuisenaire, unifix, and money. Further resources are available in the classrooms and the maths lead has responsibility to ensure resources are relevant and up to date.

### **Assessment:**

Teachers use day-to-day assessments to review their lessons and adjust them as required. Children are encouraged to make judgements about how they can improve their own work, as well as following up on close the gap marking and next steps marking from teachers and TA's. These short term assessments are closely matched to the teaching objectives.

We use teacher assessment to monitor progress and inform next steps for teaching and learning.

This is recorded on the school tracking system and used to identify gaps in learning. Teachers meet to moderate teacher assessment judgements and these judgements are also moderated with other schools in the Local Authority. The Maths subject leader keeps a portfolio of internally and externally moderated work.

In addition to good day to day assessment, we carry out more formal assessments towards the end of each block and these are used to assess progress against school and national targets. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We also make a summary of each child's progress to share with parents and carers. To support teacher assessment we use the national tests for children in Year 2.

### **The Role of the Maths Subject Leader**

- Ensures teachers understand the requirements of the National Curriculum and helps to plan lessons
- Leads by example; setting high standards in their own teaching
- Monitors and evaluates Maths throughout the whole school
- Observes lessons and identifies support required
- Discusses with SLT and governors regarding progress
- Organises and leads Continual Professional Development (CPD)
- Works with SENDCO and SLT ensuring equal opportunities for all

Last updated October 2022