

# Willerby Carr Lane Primary School



## MATHS POLICY

Mathematics equips pupils with a uniquely powerful set of tools to understand the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways.

### Aims and Purpose

The school aims to develop mathematicians, not just teach mathematics. We encourage an atmosphere in our classrooms where children feel safe to 'have a go' and contribute their ideas. It is important for pupils to enjoy maths and be excited and motivated by the subject.

The school's key aims in numeracy, for **all** pupils, are summarised below:

- Allow all children to experience regular success
- To show competence and confidence in the quick recall of basic number facts and times tables.
- Have the ability to use mathematical language to discuss and explain their work, sharing ideas with the teacher and peers
- Show an appreciation of pattern and relationships in mathematics and the ability to see links between concepts.
- Demonstrate persistence and perseverance through sustained and engaging work.
- Gain the ability to apply their mathematical skills in different contexts across the curriculum.
- Have the building blocks in place and to provide a solid foundation to lead onto secondary, further and higher education.

### Mathematics Teaching

#### Early Years Foundation Stage

The EYFS classes follow the Statutory Framework for the Early Years Foundation Stage and work towards the two Early Learning Goals for mathematics:

1. Numbers
2. Shape, space and measures

In the Foundation Stage, children are given the opportunity to develop their understanding of number, measurement, pattern and shape and space through a combination of short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration.



## Key Stage 1 and 2

At Willerby Carr Lane we teach maths daily, using the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. 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.

Pupils are split into ability sets for numeracy from Years 4 to 6.

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- problem solving (through 'Big Maths' real life purposeful activities)
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating eg. mental, informal jottings and efficient written calculations
- working with computers as a mathematical tool

A progression towards efficient written calculations should be developed and applied consistently in each year-group. The school Calculation Policy should be followed.

## Mental Maths

Children's mental maths is of great importance, with number bonds, times tables facts and various strategies for calculation taught and practised at school with support sought from parents through homework activities. Each year group teaches the mental maths set out in the National curriculum.

## Times Tables Records

We believe times tables underpin a great number of areas of maths and, therefore, a large emphasis is placed upon teaching them. Pupils each have a times table record chart that moves up the school with them. It is broken down into the following levels:

Bronze – being able to chant the multiples of a number e.g. 3,6,9,12 etc

Silver - being able to chant the times table facts in order e.g "1 x 3 = 3, 2 x 3 = 6" etc

Gold – being able to quickly recall the facts for the times table in any order, including division facts e.g 8 x 3 or 24 ÷ 3

## Using Practical and Visual Images to Secure Understanding.

It is vital that pupils have a solid understanding of the concepts they are learning. In **every** year group, whatever the age, pupils should be introduced to new mathematical concepts in a visual and practical way in order to fully understand what they are learning and make connections.

Numicon is used as a teaching resource throughout EYFS and Key Stage 1, and into Key Stage 2 along with many other resources such as beads, number tracks and lines, hundreds, tens and unit blocks, with the aim of giving children a solid understanding of number ideas and relationships that is essential for success in maths.



## Planning

Planning begins from a thorough understanding of children's needs gleaned through effective and rigorous assessment and tracking, combined with high expectations and ambition for all children to achieve.

Long and medium term planning will outline the areas of mathematics that will be taught during the year and term to ensure coverage of the National Curriculum.

Short term planning must be sufficient in order to:

- identify accurate and appropriate learning objectives for each ability group within the class
- provide purposeful learning activities to achieve this
- Provide extension and support opportunities
- be adapted within and after the lesson based on Assessment For Learning by the teacher and teaching assistant

## Assessment

Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This could occur in the following ways:

- skilled teacher and teaching assistant questioning within lessons;
- observing pupils at work to identify strengths or misconceptions;
- scanning pupils' responses through 'show me' using number fans and whiteboards;
- using mini- plenaries to gain information about how much pupils have learnt;

Summative assessments are made at least once per term in order to provide further understanding and a more rounded judgement of pupils' abilities.

## Tracking Progress

We use the termly tracking data to identify pupils that are behind or ahead of track and put intervention strategies in place. These assessments are also used to inform our termly reports to parents.

Tracking is used in order that children who are not making good progress over time can be targeted for support in one form or another. What that support will be and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed.

Where further support is deemed necessary, a specific plan with clear targets and success criteria will be written by the class teacher and shared with parents and support staff. Targets will be regularly reviewed and, if progress is still not being made, the SEN team will be involved.

Where a child is working well above their peers, they will also be given differentiated targets based on their prior attainment. They will be set challenging learning objectives which they will work towards through carefully planned activities and tasks.

## Marking

Work in mathematics is marked every day in relation to the learning objective (WALT) and in accordance with the school's marking policy. It must be clear in identifying where errors have occurred and address any misconceptions.



Where support has been given by the teacher or teaching assistant this is written or stamped on the child's work.

When appropriate the children themselves can mark answers and must be given time to respond to errors and make corrections using green pen.

## **Resources**

The Subject co-ordinator is responsible for the provision and updating of resources. Basic resources are located within individual classrooms with a further large bank in the resource room.

Resources within individual classes should be clearly labelled in order to be accessible to all pupils, who should be encouraged to be independent and select their resources without seeking permission.

A variety of ICT maths resources are installed on the Ipads, classroom computers, laptops and in the ICT suite and used regularly to enhance learning.

## **Mathletics**

Mathletics is an online programme used with every child from Years 2 to 6 to set homework on a fortnightly basis. The detailed data it provides is a valuable tool in assessing children's progress and identifying gaps.

