



## Wavell Community Junior School

# Mathematics Policy 2016 – 2017

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Wavell Community Junior School. This statement of policy relates to all pupils, staff, parents and governors of Wavell Community Junior School. The age range of pupils from 7-11 must be acknowledged in the creation of the policy and the development of the mathematics curriculum.

### The Aims

- To develop a positive attitude to numeracy by presenting it as an enjoyable, interesting and attractive subject.
- To develop children's confidence in their own ability to understand and tackle mathematical questions.
- To develop their ability to think clearly and logically with independence of thought and flexibility of mind.
- To develop an understanding of mathematics through a process of enquiry and experiment.
- To make children aware of the uses of numeracy in everyday learning and in the world beyond the classroom.
- To encourage children to express their mathematical ideas fluently and use its language.

### Provision -Teaching and learning style

At this school mathematics is based on five key principles. These are:

- A dedicated mathematics lesson every day – cross curricular learning to take place where possible
- Direct teaching and interactive oral with the whole class and/or groups.
- An emphasis on mental calculation, reasoning and application of knowledge.

Encourage the use of appropriate Mathematical vocabulary to explain concepts or ideas, when making predictions and for justifying answers.

- Use of assessment for learning to ensure work is differentiated to children's interest and needs. Grouping (across three classes in Year 5 and Year 6) is fluid ensuring that each activity is pitched appropriately for the individual.
- A variety of teaching strategies; including use of models, images, concrete resources and ICT, taking into account children's learning style.

### Implementation

Lessons follow a similar theme with a mental and oral starter, a main activity and a plenary session; however, these can be utilised at any point during the course of the session (mini-plenaries, small group review etc)

The teaching of maths provides opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

Pupils engage in:



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- The development of mental strategies
- Written methods
- Fluency activities
- Investigational work
- Regular problem-solving
- Mathematical discussion
- Consolidation of basic skills and routines

We recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We ensure that the appropriate vocabulary is used in our teaching and children are expected to use it in their verbal and written explanations.

We endeavour to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing and the different ways in which they learn.

In each class there is a working wall. This is not a permanent display and is added to as the topic progresses. It contains models and images, mathematical vocabulary and examples of children's work. This wall is used by children to support their learning within the unit – showing both the work they have done so far and the direction in which their learning is moving.

### Assessment and Evaluation

We are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress. Assessment is carried out on various levels.

On a day-to-day basis a range of assessment strategies will be used as part of teaching and learning. It is an essential part of learning and teaching (questioning, discussion, dialogue, feedback). It involves sharing learning goals with learners (e.g. success criteria, curricular targets). It involves learners in peer assessment and self-assessment. It provides feedback that helps learners recognise the next steps they need to take, and how to take them. It is underpinned by the confidence that every learner can improve.

Children complete a 'pre' and 'post' assessment at the beginning of each new Maths topic as outlined in the Rising Stars Maths Curriculum – these tests cover each area of Maths over the course of the year and gives the teacher, subject leader and SLT/Headteacher a clear indication of the children's progress. These tests can then be used to inform the school's assessment tool (Target Tracker) and progress can be demonstrated accordingly. The Rising Stars Maths materials require the children to sit the same test at the beginning and end of a topic in order to show progress after 2-3 weeks of quality first teaching.

At the end of the year a teacher assessment will be made, using evidence collected from books and tests, to provide a summary of where the children are in relation to national standards.

### Monitoring

Monitoring of children's progress begins with progress review meetings but continues with the subject leader evaluating further evidence to ensure children are making progress. This monitoring happens through examination of work in books, pupil interviews, analysis of assessment results and the assessments used.

Following monitoring activities feedback is given to staff about how they can strengthen their practice and CPD (continued professional development) opportunities built in where it would be deemed valuable. These might take the shape of inputs during staff meetings or by a variety of other means.



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Where specific initiatives or interventions have been put in place through action planning for school development, these are monitored by the subject leader in order to evaluate their impact. Findings are reported to the Headteacher and governors.

The success of interventions is also monitored by the Inclusion manager and this informs future planning of intervention.

It is the role of the Maths Subject Leader to analyse the data provided by the 'pre' and 'post' assessment tests in order to ensure vulnerable groups (free school meal, military children, SEND groups etc) are making sufficient progress and are in line with their peers.

### Resources

Central to our school beliefs is the use of visual and concrete resources to promote understanding. Each class is equipped with a variety of resources to promote understanding of number work. A full-school audit of resources is carried out to ensure that each class has access to the materials needed to allow children to learn using concrete resources. Staff have undergone training in how to use these resources in order to maximise their learning potential.

### Inclusion

We will provide an inclusive curriculum which will meet the needs of all pupils, where the teaching and learning, achievements, attitudes and well-being of every learner matters.

All children have equal access to the curriculum regardless of their gender or background.

This is monitored by analysing pupil performance throughout school to ensure that there is no disparity between groups.

Intervention is provided to ensure that all children achieve their full academic potential, including gifted and talented.

Children with Special Educational Needs are taught within the daily mathematics lesson.

Where applicable, children's IPMs (Individual Provision Maps) incorporate suitable objectives from the Renewed SEND Code of Practice.

We provide help for those children who use a means of communication other than spoken

English in developing and understanding specific mathematical language.

### Display

We recognise the important role that display has in the teaching and learning of mathematics by having maths work displayed in the school. Every class has a mathematics board, where possible in the main teaching area, which is changed for each Maths topic (approximately every two-three weeks) to reflect the vocabulary and other display materials that provide a visual support for the children's mental processes. Each classroom will have a 'fluency', 'reasoning' and 'problem solving' area on their display board to illustrate the activities which fall into each category.

### Homework

Numeracy homework is completed by the children in their homework books and can be selected from the activity grid provided. It operates on a points-based system akin to the Spelling homework where children are able to choose their own activity to complete and receive a number of points for each. Homework provides an array of mathematical questions and not just those related to the current unit. All Year 6 children receive a 'Maths Buster' test booklet in order to prepare them for the layout of the end of year SATs. They complete the tests in school and work through misconceptions with their class teacher.



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### **Parents**

Parents have a valuable role to play in assisting the children's mathematical learning. They are encouraged to support their child with homework and ensure that it is completed and returned to school on time. Parents are given the opportunity to discuss the school's approach to calculations at a meeting led by the Maths Co-ordinator.

### **Governors**

There is a member of the Governing Body with overall responsibility for mathematics; for 2016-17, this is Linda Wilson, the Chair of Governors. SATs results are shared with the governing body. Governors are kept up to date at Governing Body meetings on any developments in mathematics by the SLT.