



## Childwall Church of England Primary School – Maths Policy 2017



### Purpose and Aims

**Purpose:** To give pupils the skills that they need for the future. Childwall promotes the development of key skills and the ability to use and apply these to solve problems and apply their skills to real life situations.

**Aims:** Our aim in mathematics is for all children to be given the opportunity to achieve success at their own level. To support this, maths work is varied depending on each individual's needs. Support may include individual, small group/large group work and class work. At Childwall we focus on building pupils' secure knowledge, skills and understanding of number so that they demonstrate fluency in calculating, solving problems and reasoning about number.

- Pupils are taught the four operations (addition, subtraction, multiplication and division) showing varied written methods.
- Pupils are shown mental maths skills that can support their learning.
- Pupils have opportunities to develop their maths skills through problem solving and real life application.

### Provision

Our curriculum is categorised in two ways:

- **Breadth** - which gives the children experiences of using real life maths and being able to apply their skills.
- **Depth** – Maths is taught every day in school and builds on the children's previous knowledge from the previous year. Children are given a wide range of experiences to develop and secure their understanding of each area of the maths curriculum and are also given opportunities to link their learning to other topics taught throughout school.

### Progression and Assessment

**Progression:** Our curriculum is designed in line with the Liverpool Maths Plans and each year group follows the same teaching sequence to ensure progression is made for each topic (See attached sheet).

**Assessment:** We assess pupils' depth of understanding each term and use this as a forecast as to whether pupils are on track to meet our curriculum expectations for the end of year. They are assessed as either working towards expected standard, working at expected standard or working at greater depth. It is expected that the vast majority of pupils will have an expected standard understanding by the end of a Milestone and some will have a greater depth understanding.

### Monitoring, Evaluation and Improvement

All staff have been provided with a monitoring grid to track children's progress. The grid shows what a child working at expected standards needs to achieve and also what a child working at greater depth needs to achieve. This must be evidenced over time and recorded in their work. The role of the subject leader in monitoring pupil outcomes is to audit teachers' judgements. This is done collectively in staff meetings and then collated by the leader. The leader then works collectively with teachers to examine the strengths and limitations in provision to diagnose why the outcomes are as they are. The leader then creates action plans to improve achievement. The leader keeps track of the improvements they have secured over time to understand how effective he or she is as a leader.

### The Calculation Sequence – applying the skills.

The Sequence.	Prompts.
Provide an estimate for the calculation.	Using knowledge of number and the number system, rounding and approximating, make a reasonable estimate.
Teach the calculation skill.	What is the object you are teaching? Include example questions, increasing in complexity, for both operations.
Ensure you have the inverse.	Plan example questions, increasing in complexity. Ensure methods used are in line with school calculation policy. Check that children understand the inverse can also be used to check calculations.
Devise similar calculations but include units.	Which units do you need to include? Check the measures applicable to your year group for length, weight, capacity, money and time.
Complete missing box questions.	Include questions in these units above. The box may cover single digits or an entire number. Vary the position of the missing box within the calculation.
Complete word problems, 1 and 2 step, including units.	Write problems, ensuring the numbers are sized correctly in line with the objective and that units are also used.
Provide opportunities for open ended investigations.	Plan example questions and investigations. Ensure children are working with the correct operations, appropriate size of numbers and use of units for context.