

**LYDIARD MILLICENT CE PRIMARY SCHOOL AND  
RIDGEWAY FARM ACADEMY**

**MATHEMATICS POLICY**

Member of staff responsible	Sharon Baker
Governor responsible	Performance
Committee responsible	Performance
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<b>Issue Number</b>	<b>Issue Date</b>	<b>Summary of changes</b>
1.0	17.02.11	Updated to include reference to new primary framework for mathematics and APP
1.1	15.05.11	Co-ordinator changed to subject leader
1.2	10.03.14	Reference made to National Curriculum 2014 Organisation of mathematics section updated Assessment procedures updated
1.3		Updated to include progression of calculations

## Lydiard Millicent CE Primary School and Ridgeway Farm Academy

### Mathematics Policy

#### Rationale

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem-solving skills, and the ability to think in abstract ways. Mathematics is important in everyday life, many forms of employment, science and technology, medicine, the economy, the environment and development, and in public decision making.

Different cultures have contributed to the development and application of mathematics. Today, the subject transcends cultural boundaries and its importance is universally recognised. Mathematics is a creative discipline. It can stimulate moments of pleasure and wonder when a pupil solves a problem for the first time, discovers a more elegant solution to that problem, or suddenly sees hidden connections.

#### Aims

- To develop lively, enquiring minds and the ability to question and argue rationally.
- To help each pupil develop as far as possible the necessary knowledge, understanding and skills in mathematics which will be required for further study, training and adult life.
- To teach mathematics with enthusiasm and with a positive approach, giving praise for effort, attitude and success and therefore inspire confidence and enjoyment within the subject.
- To develop children as problem solvers.
- To embed skills by using the progression of concrete, pictorial and then abstract.
- To use and apply knowledge and skills in different contexts.

#### Organisation of Mathematics in Lydiard Millicent CE Primary School and Ridgeway Farm Academy

At both schools we teach the National Curriculum (2014) for Mathematics. In Foundation Stage 2, mathematics is taught in accordance with the statutory framework for the early years foundation stage curriculum and Development Matters.

The children participate in maths learning every day. These sessions range from forty-five minutes to an hour, depending upon the age and maturity of the children. Each session will usually consist of a mixture of:

- **oral and mental calculation practise to develop fluency**
- **teaching input, including a range of group sizes and structures as appropriate**
- **plenary/pit stops/top ups to review, refine and consolidate learning**
- **problem solving application and reasoning**

At Lydiard Millicent CE Primary School and Ridgeway Farm Academy we follow the White Rose Hub schemes of learning.

### **Effective Teaching and Learning in Mathematics.**

Effective teaching and learning occurs when children are given first hand practical experiences and as such, we provide practical apparatus throughout the school, in all Key Stages, for children to manipulate when learning mathematics, as appropriate. When ready, children then progress onto pictorial representations before finally solely working with the abstract. In order to learn new mathematical concepts and skills, children need to be active learners. Therefore, class teachers plan lesson which require children to discuss, move, share, prove, explain and show their thoughts in a variety of ways, including using whiteboards, number fans, digit cards, number lines and gestures. It is also vital that activities are differentiated and matched to the pupils' next steps in learning.

Learning ladders are used for pupils to be able to observe their journey of learning objectives through a particular operation or context. Pupils are also able to see their progress through the unit of learning and their growth in independence and ability to apply new learning.

### **Planning for differentiation**

Teachers plan for differentiation through 3 star challenges. Pupils are not in fixed groups and are able to choose the challenge they feel is the most appropriate to meet their needs. They are able to move onto a higher star activity if they feel ready or equally move to a lower star activity if the level of challenge is too great. Teachers support pupils with their decision making if necessary.

## **Assessment of Mathematics**

### **Short term assessment**

Children's learning is continually assessed against the learning objectives. During and following sessions, pupils may be given 'top ups' to address misconceptions where necessary. Three times a year) the children complete the White Rose Hub assessments consisting of arithmetic and reasoning papers. Question level analysis is undertaken to identify future teaching and learning needs for individuals and groups of children. Key objective grids are also updated regularly which assists in identifying learning needs for the class. This information is also used to fill in DATE sheets, which identify whether pupils are on track to be at a **d**eepening level, **a**t the expected level, **t**owards the expected level or at an **e**arlier level of understanding.

### **Able, Gifted and Talented**

Children with exceptional ability in mathematics are given opportunities to develop and extend their mastery of mathematical skills and understanding both in class and during a specialist session.

### **Resources**

Resources are purchased to impact upon standards and to support teaching and learning. Practical equipment is labelled and located in classrooms, as appropriate to the age of the children.