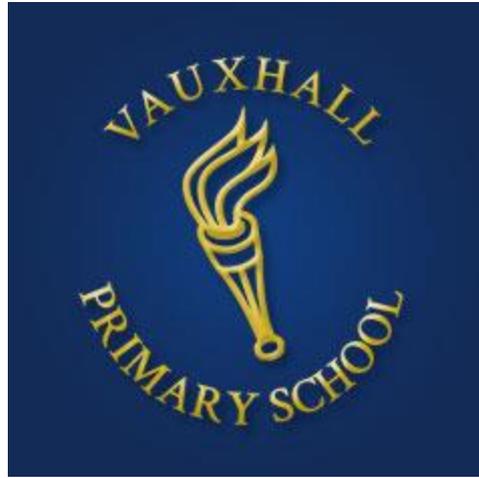


Vauxhall Primary School



Mathematics Policy

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Updated on:	Changes made / notes:
01/10/15	Each section has been edited to be in line with new curriculum documents and assessments. Also RRSA areas have been inserted throughout.
01/10/15	Mastery of objectives has been included throughout in line with the new approach to the teaching and learning of mathematics
01/10/15	Assessment masters formative assessment system
01/12/15	PUMA termly assessments

1. INTRODUCTION

Mathematics equips pupils with the 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. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them.

The National Curriculum order for mathematics describes what must be taught in each key stage and states that teachers should use every relevant subject to develop pupils' mathematical fluency. Confidence in numeracy and other mathematical skills is a precondition of success across the national curriculum.

Teachers should develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics. Pupils should be taught to apply arithmetic fluently to problems, understand and use measures, make estimates and sense check their work. Pupils should apply their geometric and algebraic understanding, and relate their understanding of probability to the notions of risk and uncertainty. They should also understand the cycle of collecting, presenting and analysing data. They should be taught to apply their mathematics to both routine and non-routine problems, including breaking down more complex problems into a series of simpler steps.

Vauxhall Primary School follows the National Curriculum for England, which provides detailed guidance for the implementation of the National Curriculum for mathematics. This ensures continuity and progression in the teaching of mathematics. In early years the curriculum is guided by the Early Learning Goals. This policy follows a whole school format and rationale.

2. RATIONALE

All school policies form a corporate, public and accountable statement of intent. As a primary school it is very important to create an agreed whole school approach of which staff, children, parents, governors and other agencies have a clear understanding. This policy is the formal statement of intent for mathematics. It reflects the essential part that mathematics plays in the education of our pupils. It is important that a positive attitude towards mathematics is encouraged amongst all our staff, parents, and pupils in order to foster self-confidence and a sense of achievement. The policy also facilitates how we, as a school, meet the legal requirements of recent Education Acts and National Curriculum Requirements.

3. PRINCIPLES

The principles of Vauxhall Primary School for mathematics are:

- policy and provision are evaluated and reviewed regularly
- resources of time, people and equipment are planned, budgeted for and detailed when appropriate in the School Development Plan.
- the governing body of Vauxhall Primary School discharge their statutory responsibility with regard to mathematics
- cross curricular links will be highlighted where appropriate
- planning of mathematics ensures continuity and progression across all year groups and key stages
- pupils are achieving mastery of mathematic objectives

4. AIMS

4.1 General

- We aim to provide the pupils with a mathematics curriculum, which values are built on the conventions for the rights of the child (CRC) and will produce individuals who are literate, creative, independent, inquisitive, enquiring and confident. We also aim to provide a stimulating environment and adequate resources so that pupils can develop their mathematical skills to their full potential.

4.2 Specific

Our pupils should

- have a sense of the size of a number and where it fits into the number system
- know by heart number facts such as number bonds, multiplication tables, doubles and halves
- use what they know by heart to support mathematical reasoning.
- calculate accurately and efficiently, both mentally and in writing and paper, drawing on a range of calculation strategies
- recognise when it is appropriate and be fluent in the use formal written methods of calculations
- make sense of number problems, including non-routine problems, and recognise the operations needed to solve them
- explain their methods and reasoning using correct mathematical terms.
- judge whether their answers are reasonable and have strategies for checking them where necessary
- suggest suitable units for measuring and make sensible estimates of measurements
- explain and make predictions from the numbers in graphs, diagrams, charts and tables
- develop spatial awareness and an understanding of the properties of 2d and 3d shapes

- achieve mastery of mathematic objectives
- all pupils will work broadly at the same pace on the same maths objectives, going into depth not breadth in order to achieve mastery.

5. PROVISION

Staff, as duty bearers, ensure that pupils are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of education.

Lessons follow Vauxhall Primary Mathematics curriculum format with a mental/oral starter, a main teaching activity and a plenary session. The teaching of mathematics at Vauxhall Primary School provides opportunities for:

- group work
- paired work
- whole class teaching
- individual work

Pupils engage in:

- the development of mental strategies
- written methods
- practical work
- investigational work
- problem solving
- mathematical discussion
- consolidation of basic skills and number facts
- mastery of mathematic objectives

In line with the new curriculum, Vauxhall Primary school is dedicated to the mastery approach of teaching which aims to;

“Expose almost all of the children to the same curriculum content at the same pace, allowing them all full access to the curriculum by focusing on developing deep understanding and secure fluency with facts and procedures, and providing differentiation by offering rapid support and intervention to address each individual pupil’s needs.

An approach based on mastery principles:

- makes use of mathematical representations that expose the underlying structure of the mathematics;
- helps children to make sense of concepts and achieve fluency through carefully structured questions, exercises and problems that use conceptual and procedural

variation to provide ‘intelligent practice’, which develops conceptual understanding and procedural fluency in parallel;

- blends whole class discussion and precise questioning with intelligent practice and, where necessary, individual support.” (NCETM)

At Vauxhall Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. The designed curriculum is used when planning to help determine the appropriate terminology, strategy and model to use in teaching. Children are expected to use appropriate mathematical vocabulary in their verbal and written explanations.

Mathematics contributes to many subjects and it is important the children are given opportunities to apply and use Mathematics in real contexts.

We endeavour at all times to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

5.1 Early Years

See Curriculum Guidance for the Foundation Stage (Early Learning Goals)

5.2 Key Stage 1

See KS1 Vauxhall Primary Curriculum programme which includes a yearly breakdown of covered objectives.

See Number Masters Programme which includes a yearly breakdown of covered objectives.

Number masters – Pupils take part in daily activities relating to all parts of the curriculum. The aim being to rigorously develop children’s number facts skills, in order to prepare them for success in KS2.

5.3 Key Stage 2

See KS2 (Years 3 – 6) Vauxhall Primary Curriculum programme which includes a yearly breakdown of covered objectives.

See Vauxhall Primary’s Mental Maths Programme of Study which includes a yearly breakdown of mental maths strategies, models and arithmetic methods.

6. ASSESSMENT

Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class. Assessment for learning strategies underpins our approaches to ensure effective teaching and learning.

In our school we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and strive 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.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their work, etc. Furthermore, we administer termly high stakes assessments using PUMA testing materials, and end of year Optional SATs. The data from these tests is monitored termly, with pupil progress reviews held with each teacher accordingly.

Pupils progress is also tracked using Assessment Masters; an online objective tick box system, designed by the Vauxhall learning cluster, to be used regularly to inform teachers a pupils progress against the year's objectives. Assessment Masters is also able to produce specific data analysis; facilitating further scrutiny where required to identify gaps in pupil's knowledge across the various areas of mathematics, allowing for more specific or tailored planning and assessment for individuals or groups of pupils.

7. ROLE OF SUBJECT LEADER

The mathematics subject leader is responsible for co-ordinating mathematics through the school. This includes:

- ensuring continuity and progression from year group to year group
- providing all members of staff with guidelines and a scheme of work to show how aims are to be achieved and how the variety of all aspects of mathematics is to be taught
- advising on in-service training to staff where appropriate, in line with the needs identified in the Development Plan (Performance Management document) and in the Subject Leader's current Action Plan, within the confines of the school budget
- advising and supporting colleagues in the implementation and assessment of mathematics throughout the school
- assisting with requisition and maintenance of resources required for the teaching of mathematics, within the confines of the school budget
- lead implementation of school, LEA, DFE- led mathematics initiatives
- Develop, implement, and evaluate a monitoring, evaluation and review cycle.

8. ROLE OF CLASS TEACHER

- to ensure progression in the acquisition of mathematical skills with due regard to the National Curriculum for mathematics.
- to develop and update skills, knowledge and understanding of mathematics.
- to identify inset needs in mathematics and take advantage of training opportunities.
- to keep appropriate on-going records.
- to plan effectively for mathematics, liaising with subject leader when necessary.
- to inform parents of pupils' progress, achievements and attainment.

9. PERFORMANCE INDICATORS

Performance Indicators, which are the criteria for success of the school's mathematics policy at Vauxhall Primary School are:

KS1 Mathematics (2014)

- 83% at or above ARE; national average 82%.
- 38% of pupils above ARE; national average of 26%

KS2 Mathematics (2014)

- 100% of pupils at ARE; national average of 87%
- 63% of pupils above ARE, compared to the national average of 41%
- children enjoy mathematics
- children talk confidently about what they are doing in mathematics

10. EQUAL OPPORTUNITIES

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of mathematics ensuring that the mathematics curriculum develops each child's personality, talents and abilities to the fullest (article 29).

All children have equal access to the curriculum regardless of their gender as all children have the right to a primary education (article 28). This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

11. PARENTAL INVOLVEMENT

At Vauxhall Primary School we encourage parents to be involved by:

- visiting them into school three times yearly to discuss the progress of their child.
- inviting parents into school in the summer term to discuss the annual report.
- inviting parents to curriculum evenings or circulating information via half termly newsletters when significant changes have been/are made to the mathematics curriculum.
- inviting parents of Year 2 and Year 6 pupils to a meeting in January on supporting their children with SATs.
- encouraging parents to help in classrooms.
- holding workshops for parents and providing guidance on supporting at home.

12. GOVERNING BODY

At Vauxhall Primary School we have an identified governing body who views termly summaries in Numeracy.

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