Mathematics Policy

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Prepared by: Mrs H Finch (Assistant Head Teacher)
Discussed with: Teaching staff
Agreed with: All school staff TBC
Agreed with Governors TBC
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This policy should be read in conjunction with:

Mathematics Calculation Policy
Teaching and learning Policy
SEND Policy

Introduction

At Worple Primary school we value every pupil and the contribution they have to make. As a result we aim to ensure that every child achieves success and that all are enabled to develop their skills in accordance with their level of ability. Mathematics is both a key skill within school, and a life skill to be utilised throughout every person's day to day experiences.

The Rationale

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of real life problems. In addition, it equips pupils with a 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.

The National Curriculum for Mathematics (2014) describes in detail what pupils must learn in each year group. Combined with our Calculation Policy, this ensures continuity, progression and high expectations for attainment in mathematics. It is vital that a positive attitude towards mathematics is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society. At Worple we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We are committed to ensuring that all pupils achieve the fundamental key concepts of mathematics, appropriate for their age group, to ensure they make genuine progress and avoid gaps in their understanding which could provide barriers to learning as they move through education. Assessment for Learning, an emphasis on investigation, problem solving, the development of mathematical thinking and development of teacher subject knowledge are therefore essential components of the Worple approach to this subject.

The Aims

- To foster a positive attitude and enthusiasm for mathematics
- To develop the ability to think clearly and logically, with confidence, flexibility and independence of thought
- To develop a deeper understanding of mathematics through a process of enquiry and investigation
- To develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the uses of mathematics in the wider world
- To develop the ability to use mathematics as a means of communicating ideas
- To develop an ability and inclination to work both alone and cooperatively to solve mathematical problems
- To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success

Principles of Teaching and Learning

The school uses a variety of teaching and learning styles in mathematics lessons. The large majority of pupils progress through the curriculum content at the same pace. Differentiation is achieved through detailed planning (depth of knowledge), group and individual support and interventions (by teachers and teaching assistants).

The questioning and scaffolding individual pupils receive in class as they work through problems will differ and pupils who grasp concepts rapidly are challenged through more demanding problems which deepen their knowledge further. Lessons are planned based upon on evidence from observations of pupils in class.

Assessment

This section details the various assessment methods and practices used at Worple through which we ensure that children are making appropriate progress and that the activities they take part in are suitably matched to their ability and level of development.

Formative Assessment (AfL)

Assessment is an integral and continuous part of the teaching and learning process at Worple and much of it is done informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing children participating in activities. Findings from these types of assessment are used to inform future planning.

Summative Assessment

More formal methods are used to determine the levels of achievement of children at various times during the school year. We use termly assessments as a way of recording children's progress in objectives covered across that specific term. At Worple we use the Hounslow Assessment Framework (HAF) and class tracking sheets to record pupil's progress. This is updated after a unit of study or an assessment has been undertaken.

In Years 2 and 6 the pupils will also undertake SATs tests in the summer term.

Early Years Foundation Stage (EYFS)

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning will be based on pupils' interests and schemas or current themes and will focus on the expectations from Development Matters / Early Years Outcomes. As the pupils progress through, more focus is placed on representing their mathematical knowledge through more formal experiences. Pupils will be encouraged to record their mathematical thinking when ready and this will increase throughout the year.

Resources

A bank of essential mathematics resources are kept in each classroom. Further resources relating to key whole school topics are kept in maths cupboards or in the resource room.

Information and Communication Technology

Teachers should use their judgement about when ICT tools should be used for example the use of Mathletics and including the use of calculators.

Role of the Subject Leader

- Ensures teachers understand the requirements of the National Curriculum and helps them to plan lessons where appropriate
- Leads by example by setting high standards in their own teaching
- Prepares, organises and leads CPD and joint professional development
- Works with the SENCO and SLT
- Plan CPD with colleagues with a view to identifying the support they need
- Discusses regularly with the Headteacher and the mathematics governor the progress of implementing the National Curriculum for Mathematics in school
- Monitors and evaluates mathematics provision in the school by conducting regular work scrutiny, learning walks and assessment data analysis

Moderating and Review

Moderating of the standards of children's work and of the quality teaching in mathematics is the responsibility of the mathematics subject leader alongside members of the senior leadership team. The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. A named member of the school's governing body is briefed to oversee the teaching of numeracy. This governor meets regularly with the subject leader to review progress.

Homework

Homework will be set in accordance with our homework policy and be appropriate to each pupil's ability.