Worple Primary School Mathematics Policy

Introduction
This document is a statement of the aims, principles and strategies for the teaching and learning of Mathematics at Worple Primary School. It was written during the Autumn Term 2012 through a process of consultation within SLT, teaching staff, governors and parents.

The Philosophy
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.

Using the National strategy Primary Framework for mathematics (which was implemented at Worple Primary School in 2007) our aim is to develop:

- a positive attitude and enthusiasm for mathematics
- competence and confidence in mathematical knowledge, concepts and skills enabling children to work both collaboratively and independently
- an ability to solve problems, to reason, to think logically and to work systematically and accurately (within each class children are encouraged to solve problems using the **RUCSAC** approach this provides a familiar scaffold for the child's thinking as well as recording processes)

R- Read the question twice
U- underline the key information
C – decide on the calculation/operation
S- solve the problem by using a standard written method where appropriate
A – answer the question
C- check the answer

- an ability to communicate using appropriate mathematical language
- an ability to use and apply mathematics across the curriculum and in real life
- the process of enquiry and exploration through mathematics

The Mechanics
Our school scheme of work is a working document which includes Units of work adapted from the National Strategy Primary Framework for mathematics. Plans are produced and adjusted daily in order to consider the needs of our children.

The areas of study include:
Using and applying mathematics.

Number
Aims

- to give the children the confidence to use and apply the 4 rules of number
- to encourage the exploration of numerical patterns
- to develop the skill for solving mental problems

- to develop the understanding of place value and the relationship between numbers and the methodical computation
- to encourage the skills of reasoning, accuracy and approximation
- to enable the children to gain the experience of using appropriate equipment necessary to investigate
- to develop the use of appropriate language of number

OVERCOMING BARRIERS MATERIAL

Overcoming barriers resources were introduced in September 2010 in order to help raise attainment from level 1 to level 2, level 2 – 3, level 3-4 and level 4 -5.

NUMICON

Many children struggle with aspects of number, therefore in September 2011 Numicon was introduced as an aid to teaching. This is now used as a practical and visual resource in Early years and Key Stage 1 for the every day teaching of Maths. In Key stage 2 Numicon is used to support groups of children who find the concepts of number difficult. It is used throughout Key Stage 2 to tackle underachievement particularly in lower Maths sets.

Shape, Space and Measure

Aims

- to develop the use of appropriate mathematical language in reference to Shape, Space and Measure
- to understand the concept of measuring and the need for standard and non-standard measures
- to develop the awareness and identification of the properties of shape through practical activities
- to give the opportunity to develop pattern making with shape
- to increase children's spatial awareness and powers of observation

Data Handling

Aims

- to enable children to confidently collect, sort and classify a range of data and develop a systematic way of recording
- to encourage children to use different ways of representing and interpreting data

Equal opportunities

Worple is committed to working towards equality of opportunities in all aspects of school life. Our school offers all our pupils a mathematical curriculum that is relevant and differentiated to meet the needs of every child so that he/she may reach their full potential. The provision for those with special educational needs is met by the daily in class support from teaching assistants/ class teacher this includes support for those more able pupils (for more details see SEN policy)

Assessment

The children will be assessed by their class teacher on the every day work which is carried out. This will help monitor the child's progress in certain concepts. Children's work will be marked positively therefore providing encouragement for the child, in addition the marking will give guidance and direction (please refer to the marking policy for more details).

Termly assessments will also be used to aid the teacher in their assessment and monitoring role. These include the following:

Year group	Autumn Term (Half termly)	Spring Term (half termly)	Summer Term 1st half
Year R	Baseline against development matters using information gathered from nursery, parents/carers, practitioner knowledge & observations (this will be undertaken once the child is settled in the environment).	Assessment against development matters using information gathered from parents/carers, practitioner knowledge & observations (this will be undertaken once the child is settled in the environment).	Assessment against development matters using information gathered from parents/carers, practitioner knowledge & observations (this will be undertaken once the child is settled in the environment).
Year 1	Use of APP	APP	1 assessment
Year 2	Use of APP	APP/Task and test materials	SATs/APP
Year 3	Use of APP/test material	APP/test material	1 assessment
Year 4	Use of APP/test material	APP/test material	1 assessment
Year 5	1 assessment & APP	APP/test material	1 assessment
Year 6	1 assessment & APP Mock SATs	APP Mock SATs	Mock SATs /APP SATs

The results of these assessments will inform teachers enabling them to set and renew children's individual mathematical targets. Each child will have a target sheet stuck into the front of their maths book and these will be reviewed on a weekly basis and new ones as necessary. The results will be tracked and analysed each half term at pupil progress meetings between class teachers and SLT.

Recording of work

All maths work to be written in pencil, where children are encouraged to present their work neatly for example: using one square per digit. Cross curricular work may be found stored on the computer shared file.

- **Foundation Stage**
  Children in Foundation Stage produce a file / portfolio of work which includes photos, observations and practical activities. Their assessments are carried out on paper which goes into this file.
- **Key Stage 1**
  Children record in books which have large squares. Children record work at least 3 times per week.
- **Key Stage 2**
  Children record in books which have smaller squares. One digit in one square.

Book scrutiny

To ensure the quality of work is of a high standard, that marking is moving children on and that the content of work is good, Maths books will be monitored across phases by phase leaders every 2 weeks.

Homework

Homework is used to support mathematical tasks such as learning of multiplication tables. At KS2 tasks are set to develop pupil's knowledge and understanding as a continuation of specific work carried out during the week within maths lessons.

- **Key Stage 1** – homework is set on a 2 weekly basis alternating with English. Children are given tasks which should take a period of up to half an hour a week to complete. These tasks are differentiated to cater for the individuals needs
- **Key Stage 2** – homework is set on a weekly basis. Children are given tasks which should take a minimum of half an hour to complete. These tasks are differentiated to cater for the individuals needs.