BALFOUR JUNIOR SCHOOL MATHEMATICS POLICY

This policy is produced for teachers, governors, parents and inspectors as a statement of intent and practice of the teaching of mathematics at our school. It has been formulated by Mr P Williams and Miss L Payne

AIMS AND OBJECTIVES:

1. To develop an interest in mathematics and to gain pleasure and satisfaction from mathematical activities.

2. To develop in pupils the ability to make use of mathematical skills which enables an individual to cope with the practical, mathematical demands of everyday life.

3. To make pupils aware of mathematics as a powerful tool and an essential element of communication across the whole school curriculum, in working life and society generally.

4. To develop the pupil's knowledge of mathematical vocabulary

5. To encourage pupils to raise questions and find possible solutions through investigations.

SKILLS AND CONCEPTS

The mathematical skills and concepts as specified by the National Curriculum and per Balfour curriculum guidance and assessment sheets:

Using and Applying Mathematics

Using and applying mathematics is demonstrated through activities linked to other strands of the mathematics curriculum, along with other aspects of the wider curriculum.

This will enable pupils to:
- Make and monitor decisions to solve problems.
- Develop mathematical language and communication.
- Develop mathematical reasoning.

Numbers and the Number System

Activities will involve:
- Counting
- Properties and numbers and number sequences, including negative numbers.
- Place value and ordering, including reading and writing numbers.

- Estimating and rounding.
- Fractions, decimals and percentages, and their equivalents; ratio and proportion.

Calculations

Calculations will be taught in line with the calculations policy.
Activities will involve:
- Understanding number operations and relationships.
- Rapid mental recall of number facts.
- Mental calculation, including strategies for deriving new facts from known facts.
- Pencil and paper methods.
- Checking that results of calculations are reasonable.

Solving Problems

Activities will involve:
- Making decisions: deciding which operation and method of calculation to use (mental, mental with jottings, pencil and paper, …)
- Reasoning about numbers or shapes and making general statements about them.
- Solving problems involving numbers in context: 'real life, money, measures'.

Measures, Shape and Space

Activities will involve:
- Measures, including choosing units and reading scales.
- Properties of 2-D and 3-D shapes, position, direction and movement.

Handling Data

Activities will involve:
- Collecting, presenting and interpreting numerical data.

RESPONSIBILITIES

Attitudes

Pupils should appreciate that mathematics is more than the manipulation of numbers and develop an awareness of the mathematical patterns and symmetry in the world around them.

Time allocation

The time allocated to mathematics is:

60 minutes daily in all classes
15 minutes quick mathematics

Teaching of Mathematics

Teachers are to follow the five phases of teaching mathematics. The five phases specified below can be conducted in any order. Each of the phases is used to focus on a range of skills needed to apply and investigate mathematics.

- Phase 1 – Key Mental Skills
- Phase 2 – Skills and Strategies
- Phase 3 – Investigate
- Phase 4 – Using and Applying
- Phase 5 – Using and Applying Independently

A typical lesson is structured as follows:

- Oral work and mental calculation (5 to 10 minutes). Whole-class work to rehearse, sharpen and develop mental and oral skills.
- The main activity (30 to 40 minutes). Teaching input and pupil activities.
- Plenary (10 to 15 minutes), Summarising key facts and sorting out misconceptions.

Quick Maths is in addition to a typical maths lesson where pupils will work on their mental agility skills. This can take place in the form of a game or a selection of quick answer questions.

Home learning

Home learning is set once every other week with number bonds, times tables or division facts with the potential for additional activities all based on the pupils needs, requirements and abilities.

Cross-Curricular Links

Cross curricular links will be made with other subjects where possible.

Teaching Strategies and Approaches

In line with the National Curriculum with a strong focus on developing mental skills.

The pupils work is differentiated as appropriate. Written recording methods are introduced where relevant.

Pupils on the SEN and PP register are accommodated for where appropriate.

Speaking and listening will form an essential role in the learning and teaching of mathematics.

Intervention groups will be conducted to support and develop pupils understanding of mathematical concepts and eradicating misconceptions.

Health and Safety

Care must be taken using equipment (such as compasses). Supervision must be adequate for practical activities (such as small groups measuring around the grounds).

Assessment

Progress will be monitored and assessed by teachers as an on-going process.

National Testing takes place in year 6.
GL assessment of mathematical progression is taken at the start and end of each year.

Summative assessment will take place at the end of each unit of work.

Equal Opportunities

Mathematical opportunities will be equal for all pupils regardless of race, gender, ability or disability.

Resources

All year groups are adequately resourced to fully implement the National Curriculum.

INSET

Staff will be encouraged to attend relevant courses whenever appropriate and possible.

Co-Ordination

The responsibilities of the Maths Subject Leader include:

- Ensuring that the National Curriculum programme of study for Mathematics is covered in all year groups.
- Monitoring the effectiveness of the provision of mathematics for each pupil.
- Ensuring that the assessment of each child in mathematics meet the requirement of the assessment policies operated by the school, Medway authority and DFE.
- Prioritising identified staff training needs.
- Ensuring enough resources are available to implement the National Curriculum and spending the allocated budget for mathematics for good effect.
- Advising staff and parents on mathematics teaching in the school.
- Leading staff meetings and carrying out major reviews in line with the School Improvement Plan

This policy will be reviewed annually by the Subject Leader and necessary changes made after discussion with all staff.

P Williams and L Payne, September 2015