

## ASHBROOK FIRST SCHOOL

### MATHEMATICS POLICY STATEMENT

#### School Aim

"Everyone matters, everyone is important."

Co-ordinator:        **Ms S Hunt**    Link Governor:        **Mr Mike Cheshire**

#### AIM

In light of Every Child Matters our aim is to create an environment where we enable our children to achieve the best possible physical, personal and educational outcomes.

#### SUMMARY

Mathematics allows ideas and information to be communicated in a variety of ways. Children should be encouraged to talk and write about mathematical ideas with assurance and to use the language of mathematics with confidence.

#### LEARNING INTENTIONS

Your 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 figure out answers mentally
- calculate accurately and efficiently, both mentally and with pencil and paper, drawing on a range of calculation strategies
- 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, and
- explain and make predictions from the numbers in graphs, diagrams, charts and tables.

### **ORGANISATION** (see also Basic Skills Policy)

Mathematics is taught through a combination of approaches using a differentiated curriculum in order to meet the needs of all children throughout the school. All children are taught the skills and knowledge of Mathematics as outlined in the Numeracy Strategy and the Foundation Curriculum. The general requirements for the Numeracy Strategy allow for a balanced programme of mathematical activities on a daily basis, which build on previous work and achievements. The Numeracy Strategy gives consideration to the progression of knowledge, skills, values and attitudes and the use of resources.

### **MANAGEMENT**

The curriculum for each year group is divided into six half-termly units and is delivered by teaching specific mathematical skills as outlined in the Numeracy Strategy and the Foundation Curriculum.

The scheme of work for mathematics is taken from the Numeracy Strategy and the Foundation Curriculum and the effectiveness of the programme will be evaluated on a regular basis.

The Mathematics Co-ordinator will be responsible for liaising with other subject co-ordinators in order to promote the use of mathematics as outlined in the Numeracy Strategy.

Each classroom should have a clearly defined Mathematics area where appropriate resources and equipment are stored, clearly labelled and readily available to all children.

The teaching of numeracy is planned according to the Numeracy Strategy, the Foundation Curriculum and Curriculum 2000.

### **TEACHING AND LEARNING**

Where teaching is concerned, better numeracy standards occur when teachers:

- structure their mathematics lessons and maintain a good pace

- provide daily oral and mental work to develop and secure pupils' calculation strategies and rapid recall skills
- devote a high proportion of lesson time to direct teaching of whole classes and groups, making judicious use of textbooks, worksheets and ICT resources to support teaching, not to replace it
- demonstrate, explain and illustrate mathematical ideas, making links between different topics in mathematics and between mathematics and other subjects
- use and give pupils access to number lines and other resources, including ICT, to model mathematical ideas and methods
- use and expect pupils to use correct mathematical vocabulary and notation
- question pupils effectively, including as many of them as possible, giving them time to think before answering, targeting individuals to take account of their attainment and needs, asking them to demonstrate and explain their methods and reasoning, and exploring reasons for any wrong answers
- involve pupils and maintain their interest through appropriately demanding work, including some non-routine problems that require them to think for themselves
- ensure that differentiation is manageable and centred around work common to all the pupils in a class, with targeted, positive support to help those who have difficulties with mathematics to keep up with their peers.
- endeavour to promote thinking skills to complement the key skills within the National Curriculum.

### **CROSS CURRICULAR LINKS**

Links are to be found between mathematics and a range of other curricular areas. However, the links should be genuine rather than contrived.

Parents are actively encouraged to support their children's learning at home, as outlined in the Home Learning Policy. Support materials are available to parents in the School Library. Parents are informed of new initiatives and given guidance where appropriate.

NB: For parents we include anyone who has the primary responsibility for the care of the pupil.

### **CONTINUITY AND PROGRESSION**

To ensure continuity and progression it is vital that information is recorded and transferred in a comprehensive manner at regular and appropriate stages.

Children's mathematics formative records are regularly monitored and new targets for learning set.

Planning for mathematics occurs at three levels:

- Long Term - yearly planning
- Medium Term - half-termly planning
- Short Term - weekly planning and daily planning

### **DIFFERENTIATION (see also Special Needs Policy)**

Our aim is to meet the needs of each individual child and involve them as far as possible in determining their next target and organisation of their pace of work.

Some children will be able to pursue more demanding work at higher levels and should be encouraged to do so. Some children will benefit from work at a lower level in order to help them consolidate particular skills. This will be addressed through planning.

### **EQUAL OPPORTUNITIES/SPECIAL NEEDS/INCLUSION**

All pupils will have access to mathematics on an equal basis, irrespective of gender, race or religion, and at an appropriate level. As far as possible, any child with a specific disability will be provided with the same opportunities as his/her peers.

A broad, balanced and differentiated curriculum will be provided in order for each child to achieve their potential as far as their capability allows.

### **ASSESSMENT, RECORDING AND REPORTING**

Assessment and testing are fundamental to the implementation of the Numeracy Strategy. This testing is a combination of Standard Assessment Tasks and regular teacher assessment, which help to determine the child's level of performance. Targets are negotiated on a regular basis.

Assessment is undertaken at three connected levels - short term, medium term and long term, to inform and support a continuous cycle of planning, teaching and assessment.

### **Short Term**

Assessments are an informal part of every lesson and may be recorded in formative records, as appropriate.

### **Medium Term**

Assessments take place each half term and are recorded in children's individual assessment books and children's formative records as appropriate.

### **Long Term**

Assessments are made towards the end of the academic year and review progress and attainment against school and national targets. These assessments are passed on to the next teacher, through class record sheets, and to parents through end of year records of achievement and parent consultations.

In Early Years mathematical development is assessed within the Foundation Profile and Stepping Stones, and children work towards the Early Learning Goals by the end of Foundation stage.

SAT material is available and can be used by any year group to assess children's work.

At present, Years 1 and 2 do the NFER standardised marks test in the Autumn Term.

### **OPERACY**

- Thinking is an important human life skill which, like literacy and numeracy, has to be learned and practised to be effective.
- We use "thinking tools" to help with this process. These tools help us to generate often completely new ideas in all areas of the curriculum which may not have been considered before.
- Once the thinker has acquired the skills and techniques they can control and direct their thinking at will.

## **STAFFING AND RESOURCES**

Class teachers are responsible for delivering mathematics within their class. There is a nominated member of staff who has responsibility for co-ordinating the curriculum and is supported by a Link Governor. (Role of the Maths Co-ordinator - Appendix 1)

A full list of resource details is identified in Appendix 2

## **MONITORING AND EVALUATION**

The Curriculum Manager, the Mathematics Co-ordinator and the Link Governor are responsible for ensuring the appropriate policy statements, guidelines and schemes of work are drawn up and revised in line with the School Improvement Plan, the Numeracy Strategy, Foundation Curriculum and Curriculum 2000.

The Curriculum Manager and the Mathematics Co-ordinator are jointly responsible for the planning, teaching, learning, monitoring and evaluation throughout the school.

All planning sheets are available to co-ordinators to monitor and evaluate their curriculum area throughout the school and provide input as required.

## **DATE WRITTEN**

This policy was rewritten in Spring Term 2006 and will be regularly reviewed in line with the ever changing learning climate. This policy is fundamental to the success of Ashbrook School and will be actively shared with all stakeholders.

## Appendix 1

### ROLE OF THE MATHEMATICS CURRICULUM CO-ORDINATOR

To be responsible to the Headteacher, in liaison with the Curriculum Manager, for the co-ordination of the work in the specified curriculum area by undertaking the following:

- 1 Act as consultant in the specified curriculum area with other members of staff.
  - 1.1 Foster the necessary integration of curriculum planning and delivery throughout the school in consultation with colleagues
  - 1.2 Advise and support colleagues in aspects of their work:
    - individual children's needs
    - teaching/learning strategies - in conjunction with the Special Needs Co-ordinator, if appropriate
    - classroom management
    - planning, assessment and record keeping
    - use of resources
    - through planning support and observation
  - 1.3 Identify and advise on current and future needs and contribute to whole school planning and lead staff training for National Numeracy Strategy.
  - 1.4 Organise and purchase relevant teaching resources from within annual budget.
  - 1.5 Convene and chair relevant staff meetings in liaison with the Headteacher/Curriculum Manager by:
    - drawing up an agenda/timetable
    - preparing background/discussion papers
    - organising necessary equipment and material
    - organising guest speakers/advisors' input
    - noting decisions made/actions to be taken
    - ensuring appropriate follow up
  - 1.6 Refer colleagues, where necessary to external agencies for advice/support eg: Resource Centres, Library, Museums

- 1.7 Inform newly qualified teachers, new members of staff and supply teachers about arrangements for the curriculum area
- 1.8 Organise workshops for parents, as appropriate.
- 2 Take major responsibility for the development of the curriculum area.
  - 2.1 Keep abreast of current thinking by attending relevant courses/meetings, reading and research and share significant developments with other colleagues.
  - 2.2 Draw up and develop policy statements, guidelines and schemes of work as appropriate in consultation with the Headteacher and Curriculum Manager by:
    - preparing draft/discussion papers
    - chairing staff meetings
    - organising working groups, where appropriate
    - researching material and gathering information
    - attending INSET
    - feeding back progress to colleagues/governors
  - 2.3 Organise, manage and maintain resources in consultation with other colleagues.
  - 2.4 Monitor the effectiveness of work in order to improve the quality and continuity of work throughout the school.
  - 2.5 Liaise with colleagues with like responsibilities in the liaison group, and participate in National and local initiatives as and when appropriate.
- 3 Make a significant contribution to relevant school based in-service training, in liaison with the INSET co-ordinator and Curriculum Manager.
  - 3.1 Identify needs/intended outcomes
  - 3.2 Plan appropriate programme, involving advisory service and outside agencies as and when appropriate.
  - 3.3 Take responsibility for the overall organisation of the initiative.
  - 3.4 Devise means of effectively evaluating the outcomes.
  - 3.5 Formulate plan for further action, as appropriate.

This job description may be amended at any time after discussion with the relevant member of staff and the Headteacher.