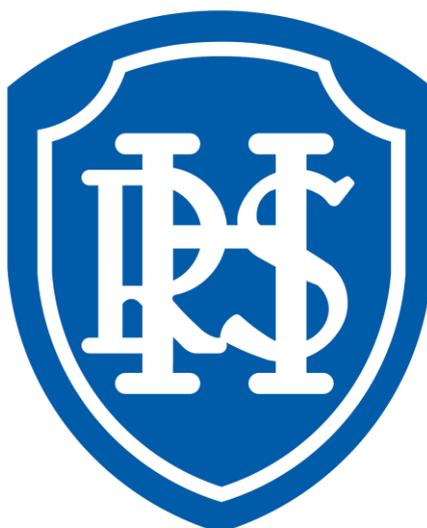


# Rushmere Hall Primary School

## Numeracy Policy



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### **INTRODUCTION**

At Rushmere Hall Primary School we believe that 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 practical tasks and real life problems

#### **It is our aim to develop:**

- A positive attitude towards mathematics and an awareness of the fascination of mathematics.
- Competence and confidence in mathematical knowledge, concepts and skills.
- An ability to solve problems, to reason, to think logically and to work systematically and accurately.
- Initiative and an ability to work both independently and in cooperation with others.
- An ability to communicate mathematics.
- An ability to use and apply mathematics across the curriculum and in real life situations.
- An understanding of mathematics through a process of enquiry and experimentation.

### **TEACHING AND LEARNING**

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- practical activities and mathematical games
- problem solving
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating e.g. mental, pencil and paper and using a calculator
- working with computers as a mathematical tool

Staff have high expectations of all children, irrespective of ability, and encourage them to be successful and achieve their full potential. Where additional adults are available, they are used to support individuals or groups, either within the class or withdrawing them for intervention strategies.

The school uses a variety of teaching and learning styles in numeracy lessons with our principle aim being to develop children's knowledge, skills, and understanding in numeracy. Teachers have high expectations of all children, irrespective of ability, and encourage them to be successful and achieve their full potential.

### **CROSS-CURRICULAR OPPORTUNITIES**

Throughout the whole curriculum opportunities exist to extend and promote numeracy. Teachers are encouraged to seek and take advantage of all these opportunities within their planning. Wherever possible, we encourage the children to use and apply their learning in everyday situations.

## **TEACHERS' PLANNING AND ORGANISATION**

We carry out curriculum planning in numeracy in three phases (long term, medium and short term). Our medium term plans are adopted from the new 2014- curriculum (with the exception of Year 2 and Year 6 until 2015) and provides details of how the lessons are taught. They ensure an appropriate balance and distribution of work across each term. Class teacher's complete weekly plans and these must specify learning objectives, success criteria, differentiation and the distribution of adult support. The planning process is reviewed regularly by the Head Teacher and by the subject coordinators.

In the Early Years Foundation Stage the planning process is done week by week and is based upon the children's needs and requirements at that point. The Early Learning goals are used to inform planning and ensure all areas are covered.

The approach to the teaching of numeracy within the school is based on:

- a daily numeracy lesson that has a high proportion of whole class and group direct teaching, during which the children are encouraged to ask as well as answer mathematical questions.
- a clear focus on direct, instructional teaching and interactive oral work with both the whole class and smaller ability groups.

Each class teacher organises a daily lesson for mathematics of an age appropriate length.

Lessons are planned a variety of resources and planning tools, which encompasses the aims and content of the 2014 curriculum. This enables teachers to plan with clarity. However, teachers are encouraged to use planning tools to inform their practice. Reception teachers use a variety of appropriate planning tools and resources, which combines learning across the Specific and Prime areas, ensuring that they are working towards the 'Early Learning Goals'. All children within the Foundation Stage are given the opportunity to develop their understanding of number, measurement and pattern, shape and space through varied activities that allow them to enjoy, explore, practice and talk confidently about numeracy.

## **DIFFERENTIATION**

In all classes there are children of differing mathematical ability. Throughout the school the children are taught in their own classes with the exception of Year 6 which are set according to ability and also in the Summer term of Year 5 so as to prepare them for Y.6. Classroom activities should be differentiated and planned to meet the needs of the children and should be incorporated into all numeracy lessons. This can be done in various ways:

- Stepped Activities which can be accessed at different steps, supporting and challenging all.
- Common Tasks which are open ended activities/investigations where differentiation is by outcome.
- Resourcing which provides a variety of resources depending on abilities e.g. number squares, digit cards, counters, multilink, number lines, mirrors, interactive whiteboard software.
- Grouping according to ability so that the groups can be given different tasks when appropriate. Activities are based on the same theme and usually at no more than three levels.

In addition Success Criteria can be differentiated to meet the needs of individual children.

## **SPECIAL EDUCATIONAL NEEDS**

Children with SEN are normally taught within the daily mathematics lesson (please see the section on differentiation). When additional support staff are available to support groups or individual children they may withdraw small groups to use intervention materials (Springboard 3-5 or Wave 3).

Within the daily numeracy lesson teachers not only provide activities to support children who find mathematics difficult, but also activities that provide appropriate challenges for children who are high achievers in mathematics.

## **EQUAL OPPORTUNITIES**

All children should have equal access to the curriculum, irrespective of particular circumstances such as race, background, gender and capability. In the daily mathematics lesson we support children in a variety of ways; e.g. repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting, chanting, finger games, rhymes etc.

### **ASSESSMENT AND RECORD KEEPING**

Children's progress is assessed in a variety of formative and summative ways.

Teacher's should critically reflect upon the teaching and learning within the learning environment and amend short term plans accordingly to account for the needs of their children and this should be closely linked to the learning objectives and success criteria of the lesson. Lesson plans should be annotated accordingly.

Class teacher's are responsible for tracking the progress of the children in their class and at the beginning of each academic year make aspiring numeracy targets for all children. Pupil asset is used by all teachers throughout the school to ensure that all children are making the appropriate progress. As well as being used by class teachers, this data is also used by SLT and subject coordinators to monitor and track pupils across the school.

We make the long term assessments with the help of end of year tests and teacher assessments. We use the national tests for children in years 2 and year 6, plus the optional national tests for children at the end of years 3, 4 and 5. The mid year assessment using SATs materials is used to inform planning and identify learning gaps. The results of these assessments are recorded on Pupil Asset which is then shared with Key Stage managers and coordinators. The optional SATs results can be analysed using the 'Lancashire Grid for Learning' website. This analysis can be conducted with year group colleagues and then shared with numeracy coordinators. Numeracy and Assessment Coordinators then analyse all of the data in terms of attainment and progress by using leveling and Average Point scores, S.I.S.S. and Raise On Line.

Long term assessments are made towards the end of the year, and we use these to assess progress against school and national targets. We can then set targets for the next academic year and make a summary of each child's progress before discussing it with parents. Teachers level all pupils towards the end of the Summer Term using end of Key Stage SATs and Optional SATs.

### **TARGET SETTING**

All teachers are responsible for the setting of appropriate targets through the use of Pupil Asset. Pupils should be made aware, on a regular basis, of their targets and how they can improve.

### **THE CONTRIBUTION OF NUMERACY TO OTHER CURRICULUM AREAS.**

- **English**

Numeracy contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others during plenary sessions. Younger children enjoy stories and rhyme that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

- **I.C.T.**

Children use and apply mathematics in a variety of ways when solving problems using ICT. Younger children use ICT to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results or when creating repeating patterns, such as tessellations. When working on control, children use standard and non-standard measures for distance and angle. These use simulations to identify patterns and relationships. Each class is fitted with an interactive whiteboard which is used to support both mental and oral and main lesson input. They have a wide range of mathematical software loaded onto them.

- **Personal, social and health education (PSHE) and citizenship**

Mathematics contributes to the teaching of personal, social and health education, and citizenship. The work that children do outside their normal lessons encourages independent study and helps them become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each others views. Children are always encouraged to assess their own learning.

- **Spiritual, moral social and cultural developments**

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

### **PUPILS' RECORDS OF THEIR WORK**

There are occasions when it is both quick and convenient to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording.

#### **Exercise Books for Recording**

Teachers are free to decide the most appropriate text book for the children they are teaching. All children are encouraged to work neatly when recording their work and should follow the PRIDE rules for presentation which are:

- When using squares, one square should be used for each digit.
- The short date should be written
- A clear learning objective should be written.
- Rulers should be used for underlining and drawing straight lines.
- Appropriate sized faces for self-assessment.

### **MARKING**

The quality of marking is crucial and all staff should be following the school's marking policy. Marking in numeracy should include:

- Next steps, if appropriate, to progress the children's learning (these are symbols in EYFS/KS1).
- Whether the child has worked independently or with support.
- What resources have been used to support the learning (e.g. 100 squares, multilink)
- Corrections should be supported with an example.
- The teacher needs to evaluate and comment on the self-assessment as appropriate.

### **MONITORING AND EVALUATION**

The mathematics coordinators are released periodically from their classrooms in order to work alongside other teachers. This time is used to monitor and evaluate the quality and standards of mathematics throughout the school and enables the coordinator to support teachers in their own classrooms.

Opportunities for teachers to review the scheme, policy and published materials are given on a regular basis during staff meetings.

### **PRACTICAL RESOURCES**

Resources which are not used or required regularly are stored centrally and accessed by teachers at the beginning of a topic. Areas/displays within the classroom are then dedicated to the mathematics resources and are easily accessible to all children, allowing them to become familiar with the relevant equipment.

## **HOMEWORK**

It is our school policy to provide parents and carers with opportunities to work with their children at home. These activities may only be brief, but are valuable in promoting children's learning in mathematics. In Year 1 homework goes home in the Summer term only in preparation for Year 2.

## **ROLE OF THE CO-ORDINATOR**

- To take the lead in policy development
- To support colleagues.
- To monitor progress in Mathematics – e.g. leading staff CPD, scrutiny of work, analysis of formal assessment data.
- To take responsibility for the choice, purchase and organisation of central resources for Mathematics, in consultation with colleagues.
- To liaise with other members of staff to form a coherent and progressive scheme of work which ensures both experience of, and capability in, Mathematics.
- To be familiar with current thinking concerning the teaching of Mathematics, and to disseminate information to colleagues.
- The co-coordinator will be responsible to the Head teacher and will liaise with the named link Governors.
- To periodically attend pyramid meetings and to encourage a working partnership with the other schools within the Northgate Pyramid.
- To work with the Gifted and Talented Coordinator in order to share information regarding gifted and more able mathematicians thus ensuring that the register is kept up to date, appropriate intervention programmes are initiated for those children, and that they are tracked to make sure that they continue to make appropriate progress.

## **REPORTING TO PARENTS**

Parents are given the opportunity to discuss their child's progress on three official occasions but understand that the schools' 'open door' policy enables them to address concerns throughout the year. A reporting sheet is completed twice a year prior to parents' evenings in the Autumn and Spring Term and end of year reports are completed before the end of the summer term. Teachers use the information gathered from their assessments to help them comment on individual children's progress.

Written by Georgina White and Kevin Brown  
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June 2014

**Policy review:** June 2016