



LARKS HILL J&I SCHOOL

Maths Policy

Approved Date	Autumn Term 2016
Effective Date	Autumn Term 2016
Planned Revision Date	Autumn Term 2019
Current Revision Number	2
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Maths Policy

Introduction

Mathematics is a core subject within the National Curriculum. This document outlines Larks Hill's policy regarding the delivery of Mathematics.

Within the National Curriculum, the Programmes of Study set out what pupils should be taught and the Attainment Targets set out the expected standards of pupils' performance. The Curriculum 2014 Framework provides detailed objectives for planning and teaching mathematics for pupils aged 5 - 11.

This policy reflects the consensus of opinion of the whole teaching staff and has been drawn up as a result of staff discussion. The implementation of this policy is the responsibility of the Head Teacher and all the teaching staff. All children are taught Mathematics by their class teacher except in exceptional circumstances.

The nature of mathematics

Mathematics is an essential element of everyday life. This is reflected in school where the use of mathematical knowledge, skills and understanding is required in all other areas of the curriculum. This ability can be fostered by a variety of approaches and by ensuring that children are given opportunities to develop and apply their skills and knowledge in appropriate activities that show the relevance of Mathematics to their daily lives.

Aims

- to develop a positive attitude to Mathematics and an awareness of its fascination;
- to develop the ability to think clearly and logically and to work systematically and accurately;
- to provide a means of achievement for all children developing confidence to approach new work;
- to develop initiative, an ability to work independently and also to work in co-operation with others;
- to develop a mastery to teaching mathematics throughout school;
- to develop a range of mathematical skills and knowledge accompanied by the quick recall of basic facts;
- to develop the ability to use and apply mathematical skills to solve problems in other curriculum areas;
- to develop an awareness of the uses of Mathematics in the world beyond the classroom;
- to develop an awareness that the structure of Mathematics is based upon patterns and relationships;

Entitlement

In the Foundation Stage, Mathematics is covered as part of the Early Learning Goals. In Key Stages 1 and 2, the knowledge, skills and understanding in the Programmes of Study identify the main aspects of Mathematics in which children

should make progress to meet age related expectations to meet Age Related Expectations.

Year 1	<ul style="list-style-type: none"> • Number and place value • Number – addition and subtraction • Number – multiplication and division • Number – fractions • Measurement • Geometry – properties of shapes • Geometry – position and direction
Year 2 & 3	<ul style="list-style-type: none"> • Number and place value • Number – addition and subtraction • Number – multiplication and division • Number – fractions • Measurement • Geometry – properties of shapes • Geometry – position and direction • Statistics
Year 4	<ul style="list-style-type: none"> • Number and place value • Number – addition and subtraction • Number – multiplication and division • Number – fractions (including decimals) • Measurement • Geometry – properties of shapes • Geometry – position and direction • Statistics
Year 5	<ul style="list-style-type: none"> • Number and place value • Number – addition and subtraction • Number – multiplication and division • Number – fractions (including decimals and percentages) • Measurement • Geometry – properties of shapes • Geometry – position and direction • Statistics
Year 6	<ul style="list-style-type: none"> • Number and place value • Number – addition, subtraction, multiplication and division • Number – fractions (including decimals and percentages) • Ratio and proportion • Algebra • Measurement • Statistics • Geometry – properties of shapes • Geometry – position and direction

There are requirements for using and applying mathematics in both Key Stages.

All children have an entitlement to access the Programmes of Study at an appropriate level in each attainment target. Children with special needs in mathematics are catered for by the differentiation of activities and by working in small groups with a Learning Support Assistant when possible.

Where children show an aptitude for Mathematics beyond the rest of their peers, they should be given suitably challenging activities.

Planning

As intended with the new curriculum, our teaching promotes depth of learning, with opportunities for varied and frequent practice of the fundamentals of mathematics, enabling pupils to become fluent in each area before moving on. Opportunities are provided regularly for children to demonstrate mastery of a concept in a variety of contexts. Our Maths Curriculum is organised so that the whole school focuses on one aspect of mathematics e.g. place value, at the same time. (See document 'Mastery Based Maths Curriculum'.

Class teachers will group their children in a variety of ways according to the nature of the activity. However, most whole class teaching takes place in mixed ability groups using a variety of Kagan strategies.

Commercial resources are used as a source of ideas for teacher reference and as pupil material where appropriate to the activities that have been planned.

Implementation

Children will be given opportunities for:

- practical activities;
- problem solving (both open and closed);
- mathematical investigations;
- individual, paired, group and whole class discussions and activities;
- using ICT where appropriate;
- learning through mathematical games;
- communicating their findings in a variety of ways;
- developing fluency and mastery of mathematical concepts;
- using and developing mental arithmetic skills and strategies rather than relying on more formal methods of calculation;
- developing and using correct mathematical language;
- developing skills in Speaking and Listening through Mathematics;

Calculations

A Calculations Policy was developed during 2014 by the Pontefract Academies Trust. This has been reviewed, amended and adopted for the whole school. Many children develop their own strategies for performing calculations which work effectively but other children need to be taught these. Our policy ensures that strategies are taught in a uniform way throughout school and also within the

Academy. A booklet for parents has been produced to demonstrate and explain our strategies. There have also been opportunities for parents to attend presentations about the Calculations Policy and we intend to repeat that this academic year.

Teachers provide regular opportunities for the children to use the strategies that they have been taught to solve 'real life' number problems involving all four number operations. Children are asked to explain how they have solved a problem both verbally and by using the appropriate mathematical symbols. A moderation exercise is undertaken by all the children in school (at the start and end of each year) to establish how effectively calculations are being performed. This helps to inform teachers whether the class as a whole, or individual children, need further support.

ICT

Each classroom has an interactive whiteboard installed and teachers use it within their mathematics teaching whenever they feel it is appropriate. All members of staff have received some training on the use of their whiteboard. Other software for Mathematics is available in the ICT suite and again, teachers use it when they feel it is appropriate. Notebooks are available for use in the classroom.

Staffing and Resources

There are two teachers designated as Mathematics Co-ordinators (one in each Key Stage) who are willing to offer support to colleagues and who order and manage the resources in school.

Resources are stored centrally but equipment pertinent to a topic may be selected and stored where it is available for children to select for themselves. Each classroom has an increasing range of essential mathematical equipment.

Learning Support Assistants work in each class to try to enable all children to make good progress in Mathematics. They may work with lower attaining children in small groups to assist with areas of weakness or with more able children to provide greater challenge or a wider range of contexts in which children can use their skills and knowledge.

Assessment and Recording

Teacher assessments are on-going, recorded and collated regularly.

In the Foundation Stage, the two areas of Maths – Number and Shape, Space and Measures are assessed through the Foundation Stage Profile. As the children enter reception, a baseline assessment is completed. The Foundation Stage Profile is completed by the end of June in the Reception year.

Ongoing formative assessments are recorded on Target Tracker regularly. These are periodically confirmed by the use of teach written tests using questions from the Rising Star Assessment Bank. Pupils are only assessed on concepts that have been taught that academic year. Analysis of data from these test results supports teachers in their future planning by identifying strengths and weaknesses of classes and individual children.

Practice NC Tests are completed by Year 6 prior to the externally marked Mathematics Test at the end of the year. Year 2 also complete a Maths Test or Task as part of Teacher Assessment at the end of the year.

Parents are informed of their child's progress in Maths and their attitude to it in an annual report which is sent out in July.

Monitoring

All staff have been observed teaching Mathematics by the Maths Coordinator, the Head Teacher or Deputy as part of Performance Management. Other monitoring takes place throughout the year through staff discussions, collecting planning, classroom displays, the Moderation Exercise, pupil tracking, book scrutiny, and analysis of results.

Homework

Class teachers regularly set homework in Mathematics for the children they teach. This may consist of oral work- such as practising tables or number bonds – or a written piece of work based on what has been covered recently in class. Parents are sent information each term outlining the areas for children that will be in focus.

Background Documentation

This policy was informed by reference to Mathematics: Curriculum 2014

Review

This policy will be monitored on an on-going basis. The Head teacher and staff will review this policy periodically.

N Read
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October 2016.