

Lanesfield Primary School



Mathematics Policy 2017

Review Date: June 2019

Introduction

The presentation of the Maths curriculum will inter-relate the essential concepts and skills needed to develop understanding and progression in Maths as a whole. We aim to develop mathematical language and apply the skills learnt to all areas of as defined by the National Curriculum.

The emphasis will lie as far as possible on practical and mental activities, where children will have the opportunity to discuss, experiment and suggest methods of accomplishing tasks, whilst developing speed and accuracy in computation and logic.

This policy has been written in response to the New National Curriculum September 2014.

Aims for teaching Maths

We will provide opportunities for all children to:

- ✓ Enjoy mathematical activities
- ✓ Develop a 'have a go' outlook and gain confidence through their experiences
- ✓ Understand that Maths is an integral part of daily life and not just confined to the classroom
- ✓ Be equipped to cope with everyday mathematical demands
- ✓ Use skills learned and apply them to other aspects of daily life
- ✓ Become numerate and use knowledge and skills with increasing speed and accuracy
- ✓ Develop logic in attempting practical and mental tasks
- ✓ Interpret and explain mathematical data and make predictions based on their own conclusions

Basis for implementation

The following considerations will be applied in the teaching of Maths in this school:

Children should be encouraged to succeed and have no sense of failure. Mistakes should be regarded as a positive step to learning and later success.

Children will always be encouraged to try for themselves and will feel free to ask for help at any time.

There is usually more than one method of completing a task; children will be taught strategies for solving Maths questions, to enable them to develop their own technique. The contribution of every child has a value.

A variety of ways of working are encouraged i.e. individually, in groups or as part of a whole class, so that children have opportunities to discuss and question what they learn.

The use of Information Technology should be respected as a tool for learning and teaching Numeracy. This will include the use of calculators, laptops, OHP's, projectors, video, digital camera, Fizzbooks. iPads and audio equipment.

Tasks should always be linked to children's ability and may therefore be either different or differentiated; giving all children the opportunity to succeed at their own level.

Teaching of calculations will follow the calculation policy.

Planning

National Curriculum areas will be followed and more detailed planning will enable staff to deliver a broad and balanced curriculum. We have used the 2014 National Curriculum and devised our own medium term plans for our school. Early Years will follow the Early Years Curriculum.

Medium term planning is carried out termly and is supported by weekly, more detailed SMARTboard planning, taking into account all aspects of the requirements of the children, and which is tailored to meet the teaching and learning objectives within our own school.

Strategies for teaching mathematics

Mathematics follows the learning objectives established by the National Curriculum and is teacher driven rather than scheme led.

No specific published scheme is followed in school in either key stage. Teachers for the most part prepare their own materials; but support material may also be drawn on from various commercial schemes and software, where this is appropriate to stages of children's learning.

All independent work is preceded by a whole class teaching focus, with a differentiated follow up task on the same theme, provided to further develop the concepts being taught. Tasks are differentiated by bronze, silver, gold and world record challenges.

The class teacher will work with a different target group each day to enable consistent progression and assessment to take place.

Throughout KS1 and KS2 each objective is revisited on a termly or half-termly basis to consolidate prior learning and to encourage progression.

Computing is an integral part of teaching and learning in our school and is used to enhance learning. Staff are trained in the use of computing through regular Inset opportunities and the purchase and use of appropriate and current software is constantly under review.

Organisation

All children in school will have a daily mathematics lesson.

This will last for between 45 minutes and 1 hour, according to the age and ability of the children.

Children are taught as a class across the whole school -KS1, Lower KS2 and Upper KS2.

Every lesson will exhibit the following:

Mental Maths activity

A whole class interactive activity, including use of digit cards, target boards, counting sticks and wipe boards, involving a range of different types of questions targeted to individual children and groups of similar ability.

Main task

A whole class teacher led activity, with emphasis on strategies rather than numerical values. This forms the basis of differentiated group work, which follows, and is delivered at lowest possible level to ensure maximum participation. The class teacher will work with a target group each day.

Plenary

The whole class will be brought back together to discuss individual strategies used in set tasks; to make any further teaching points or to extend work by posing new questions.

Learning support assistants will provide a positive supporting role during Maths lessons, i.e. in supporting lower ability children during mental and oral starter; assessing individual and group activity and working with an additional focus group during the main part of the lesson. These groups will be identified by the class teacher.

Special Needs

Advice and help is always freely available from the SENCO and the Maths Co-ordinator within the school.

Classes in KS1 have additional support from learning support assistants, who are timetabled within each class, to offer support in practical tasks and where understanding may be limited due to English being a second language. This is included in intervention planning available in class files.

Assessment and Recording

Children's progress is constantly monitored on an informal basis.

Rising stars assessments are carried out half termly in years 1-6 and the results from these together with teacher assessments through the year, are used to set targets for future learning. SATS are carried out annually in years 2 and 6.

Children have success criteria to achieve for individual lessons and are given gap tasks to complete from the teacher through marking.

Moderation and assessment activities will take place during PDM and will additionally take place during PPA. Teachers will collect evidence and use the targets sheets, developed by the Maths Coordinator which are linked to the 2014 National Curriculum. These will also support teacher judgements for termly assessments.

Feedback to pupils

It is important that children feel their efforts and contributions are valued. At Lanesfield we undertake to recognise achievement in the following ways:

- Displays of work in classrooms and public areas, as well as working walls
- Star charts for effort as well as results
- Head teacher's awards and certificates in a weekly merit assembly
- Consistent marking and grading of work
- Copies of work sent home for parents
- House point system to recognise individual and team effort within the whole school
- Self-assessment through curricular targets and use of success criteria
- Marking in both Key stages through the highlighting system and gap tasks.

See marking policy.

Monitoring of policy

We are aware that the type of skills children will need to survive in the adult world are constantly subject to change. We ensure that we are providing the best possible programmes of study, through holding regular curriculum meetings to discuss current practice and new initiatives. We hope to achieve:

Consensus of practice across both key stages

Good provision of available resources for use in school

Individual teacher input into curriculum planning

Sound progression from year to year

Setting of realistic and achievable targets in order to raise standards throughout the whole school

In addition, the Maths Co-ordinator, in partnership with the Head teacher and the SLT will produce an action plan annually; the functions of which are:

To assess and monitor the quality of the teaching of Maths in the whole school.

To identify areas of weakness in children's learning

To support the subject knowledge of class teachers and identify training opportunities for professional development.

To establish priorities set out in the school development plan, in order to raise standards.

Resources

Each classroom has its own bank of resources that will be in use on a daily basis. In addition a central resource bank has been established for the school in the KS1 corridor. This will house topic-based equipment needed on a more infrequent basis. The addition of new resources is under constant review; with teachers identifying particular needs for their own classrooms, and the Maths Co-ordinator being aware of current recommended materials.

Out-of-class work and homework

The daily mathematics lessons will provide opportunities for children to practice and consolidate their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. These may be extended through out-of-class activities on Education City. These activities will be short and focused and will be referred to and valued in future lessons. Children have usernames and passwords for the interactive program Education City where teachers may set activities for the child's specific needs.

Equal Opportunities.

As a staff we endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender and Special Needs, both in our teaching attitudes and in the published materials we use with our pupils.

Next Review Due June 2019