

Shipbourne School



Maths Policy

October 2017

INTRODUCTION

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Shipbourne primary school. Teachers are encouraged to use the National Curriculum 2014 and, most importantly, assessment for learning to plan and develop interesting and engaging lessons that ensure progression across the school. The policy has been drawn up as result of staff discussion and has full agreement of the Governing Board. The implementation of this policy is the responsibility of all the teaching staff.

THE NATURE OF MATHEMATICS

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 also provides the materials and means for creating new imaginative worlds to explore.

Using the Programmes of Study from the National Curriculum 2014 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;
- An understanding of mathematics through a process of enquiry and experiment.

TEACHING MATHEMATICS

Teachers begin planning with the National Curriculum (2014), forming a long term plan which covers the required programmes of study. For each term, medium term plans are formulated, ensuring good coverage and progression through the year. Progression grids and assessment for learning are used to facilitate weekly and daily planning, ensuring adequate differentiation for each child. Other relevant documentation including the school progression documents for calculations and planning formats from Kent are also referred to.

Teaching time

All pupils from year 1 to year 6 will have dedicated daily mathematics lessons of approximately 60 minutes. Children are encouraged to use and apply their maths knowledge at every opportunity and where appropriate, teachers plan opportunities for this in other areas of the curriculum.

Teachers of Reception children base their teaching on objectives in the Foundation Stage Curriculum, providing children with mathematical opportunities through self-initiated investigation in a stimulating learning environment. This ensures that they are working towards the 'Early Learning Goals for Mathematical Development'.

Class Organisation

Children are taught Maths in their class groups. Ability groupings will sometimes be used within the class structure, where this facilitates better provision for learning. All maths lessons are differentiated in order for children to reach their full potential and make sufficient progress in each lesson. Within these lessons there will be a good balance between whole-class work, group teaching and individual practice.

Daily Mathematics Lesson

All lessons have a clear learning objective (WALT), and success criteria are shared with, or generated by, the children in each lesson.

Lessons will usually follow the structure of:

- Teaching Input – this is oral and interactive and will involve all groups of children. Appropriate practical resources, models and images will be used to support children in developing their mathematical understanding.
- Differentiated pupil learning – this may involve independent, paired or group work at levels appropriate to pupils' abilities and including the use of practical resources, and ICT where appropriate
- Learning breaks-to recap, clarify or move the children forward in their learning.
- Plenary – this may include: recalling what has been learnt, summarising the key points, evaluating learning against the learning objective and success criteria, connecting what has been learnt to other areas in maths, or across the curriculum.

At times, teachers may deviate from this lesson structure where they feel an alternative structure will have greater impact on pupils' learning.

Maths tasks will be taught as often as possible through a problem solving approach, linking the skills to real world applications. Worksheets will only be used where learning benefits are clear and specifically in line with the learning objective for the lesson.

Links between mathematics and other subjects

Mathematical contributions are made in many subjects within the primary curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to begin to use and apply mathematics in real contexts.

Our school is keen for children to use mathematics skills in a range of situations including Science, ICT, PE, and Topic learning

SCHOOL AND CLASS ORGANISATION

Differentiation

Teachers use their tracking grids and assessment for learning, along with the school calculation policies and other relevant documentation to plan learning opportunities that are matched closely to individual pupils' needs, in order for all groups of children to make progress (girls, boys, EAL, more able, Gifted and talented, vulnerable groups, LAC, those with specific learning needs and children with Statements).

Teaching Assistants (TAs) are used to support all children in the classroom and teachers carefully plan to use TAs effectively in order to help children make progress.

Equal Opportunities

All groups of children have equal access to the maths curriculum in line with our Single Equality Scheme. Teaching materials are chosen to reflect the cultural and ethnic diversity of our society and we try to avoid stereotyping by gender or race. Care is taken to ensure that teaching does not disadvantage any gender, cultural or ability group. Class teachers, along with the SLT, monitor pupils' progress termly to ensure that no group is disadvantaged and that appropriate actions are put into place.

Pupils' records of their work

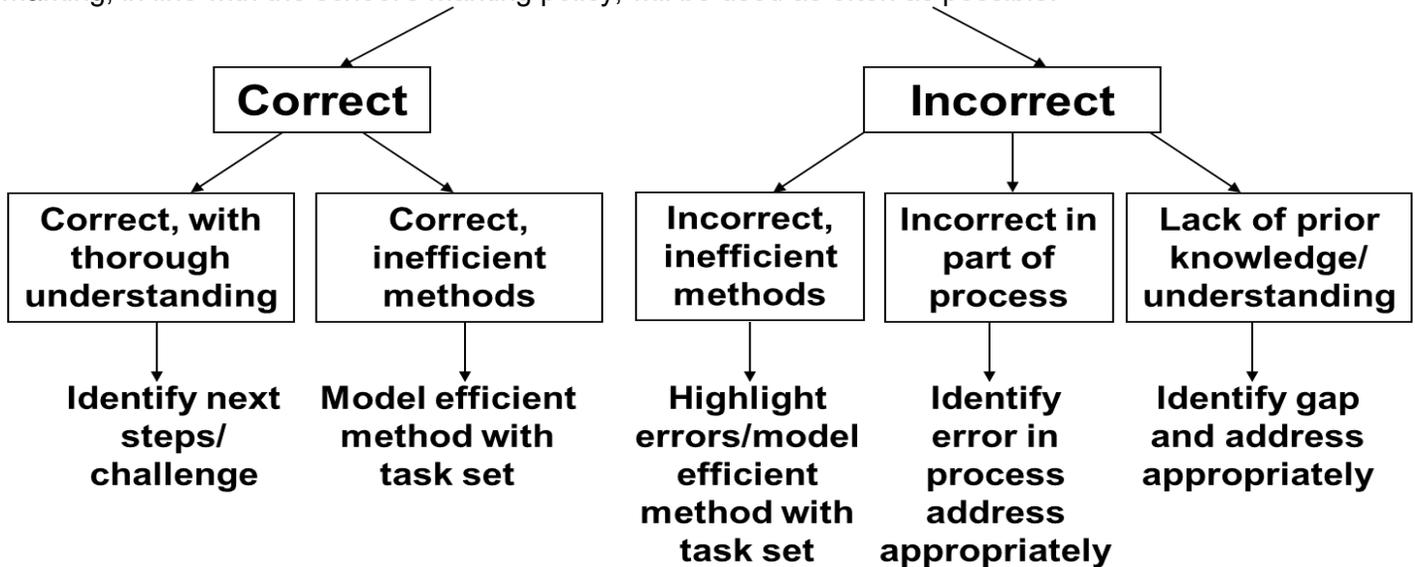
There are occasions when it is not necessary to record mathematics in a permanent form, but there are also occasions when the children need to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording. They will always record the date and Learning Objective (WALT) at the start of their work.

Before carrying out a calculation, children are encouraged to consider:

- Can I do it in my head?
- The size of an approximate answer
- Could I use jottings to keep track of the calculation?
- Do I need to use an expanded or compact written method?
- All children are encouraged to work tidily and neatly when recording their actual answers but jottings may take any form and are important evidence for the teacher.

Marking

All work will be marked to acknowledge its completion. At times children may mark their own work with the teacher's input. This enables immediate feedback and correction to move learning forward. Developmental marking, in line with the school's marking policy, will be used as often as possible.



Homework

Maths homework will be set in line with the school homework policy. Parents will be notified of the day of the week it is set and due in. Times table practice will be expected every week and may be supported by a worksheet appropriate to the child's ability. Children will be regularly tested and supported in the learning of their times tables

Information and communication Technology

ICT will be used in various ways to support teaching and motivate children's learning. ICT will involve the computer, calculator, and audio-visual aids. They will, however, only be used in the daily mathematics lesson when it is the most efficient and effective way of meeting the lesson objective. The school subscribes to the Mathletics and My Maths program and tasks will be set periodically to aid learning. It is an important skill to develop efficient and appropriate use of calculator. Children are taught how to use a calculator efficiently.

Assessment

Assessment is used to inform teaching in a continuous cycle of planning, teaching and assessment. Assessment is a part of every lesson and will take place through open questioning, observation and marking. In addition to this, children are encouraged to self-assess against the success criteria for the lesson. Planning and lessons will be adapted in response to the needs of pupils'. Children's learning is tracked using progression grids, which teachers use to plan next steps in learning.

Throughout the year, and in line with the school assessment cycle, teachers will work together to moderate children's levels using APP materials to ensure consistency of judgment and evidence. Classroom Monitor is used to record children's attainment and monitor progress and Pupil Progress Meetings take place termly. Optional SATs will be taken yearly by all KS2 pupils and both year 2 and year 6 pupils will take end of key stage SATs.

Targets

Children are targeted through the use of age specific success criteria in the majority of lessons. Where required, individual targets will be given to move a child forward. Extra time may be allocated for this child to work on intervention programmes with a TA or teacher.

MANAGEMENT OF MATHEMATICS

Role of the subject leader

- Disseminate good practice
- Lead and organise staff development
- Ensure teachers are familiar with the calculation policies and other relevant documents to support the teaching of mathematics
- Ensure continuity and progression through monitoring of planning, books, lessons
- Conduct learning walks and observations of Maths teaching, identifying areas where further support is needed
- Work alongside colleagues and teach demonstration lessons to support improvement
- Support the development of record keeping, assessment and target setting systems in mathematics
- Monitor, order and organise maths resources
- Keep up to date with developments in maths
- Work cooperatively with the Headteacher, SENCO and SLT, informing them of progress towards targets and issues affecting mathematics within the school
- Work collaboratively with parents

Role of the Governor Monitoring Pair:

- To visit the school regularly to talk with the teachers and when possible, observe some of the daily Maths lessons;
- To report back to the Governing Board on a regular basis;
- To attend any relevant inset or training.

Role of the Headteacher:

- Liaise with subject leaders to lead, manage and monitor the National Curriculum, including monitoring teaching plans and the quality of teaching in the classrooms;
- With the Governor Monitoring Pair, keep the governing board informed about standards;
- Ensure that Maths remains at a high profile in the school's development work.

Monitoring and review

This policy will be monitored by the Governing Board, who will always take due note of the guidance provided by the Local Education Authority.

The policy will be reviewed every three years, or earlier in the light of any changed circumstances in school or in the curriculum.

For further guidance, please refer to National Curriculum 2014-Maths