

# MATHEMATICS POLICY



**2017**

*Rodmarton Primary School is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share the same commitment. All staff and volunteers are subject to an enhanced DBS check.*

*Please refer to the school's Safeguarding Children Policy for more information*

*We have carefully considered and analysed the impact of this policy on equality and the possible implications for pupils with protected characteristics, as part of our commitment to meet the Public Sector Equality Duty requirement to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations.'*

Agreed date: Spring 2017  
Next review: Spring 2019

**Our vision for the teaching of mathematics**

We aim to inspire all of our pupils, irrespective of their ability, to reach their full academic potential in all subjects. We recognise that mathematics is a critical area of skill and knowledge that impacts on the quality and value of the lives we lead. Therefore, our objectives in the teaching of the maths curriculum include:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to develop confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to explore features of shape and space, and developing measuring skills in a range of contexts;
- to help children understand the importance of mathematics in everyday life.

## **Context**

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It is a core subject with a range of cross-curricular links but, most often, is best taught discretely, using opportunities from other subjects to practice and hone skills in a context. Mathematics involves developing confidence and competence in number work; shape, space and measure; handling data and the using and applying of these skills. We aim to support children in achieving economic wellbeing by equipping children with a range of computational skills and the ability to solve problems in a variety of contexts using the Development Matters statements for Mathematics in Foundation Stage and the revised Primary Framework for Mathematics and existing National Curriculum to guide planning in Key Stages 1 and 2.

## **Leadership and Management**

The subject leader's role is to empower colleagues to teach maths to a high standard and support staff in the following ways:

- By keeping up to date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals)
- Having a knowledge of the quality of mathematics provision across the school
- Identifying and acting on development needs of staff members
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards.
- Providing necessary equipment and maintaining it to a high standard. Resources are kept both centrally and within the classroom in clearly labelled trays (for more regular use).

## **National Curriculum**

The Early Years Foundation Stage Curriculum feeds into the National Curriculum and the revised Primary Framework for mathematics. It is good practice to make use of cross curricular links to enable children to use their learning in a real life context. Therefore, pupils will be given plenty of opportunities within sessions to use and apply the mathematical skills and concepts they have learned. In planning topic work, teachers will outline precisely what mathematical skills the pupils will be practising and extending.

## **Teaching**

Mathematics is taught by a qualified teacher within the classroom and may be supported by Learning Support Assistants (LSA) within the class during the maths lesson or at other times in the day through interventions. The level of LSA support is determined by the needs of the pupils. All pupils should receive focused teaching. Should a teacher not teach a maths lesson (perhaps due to PPA or professional development opportunities), the class teacher remains responsible for the effective delivery of the learning outcomes and must ensure sufficient time for the person covering to become familiar with the planning and expectations for the lesson.

Pupils not in line to achieve two levels of progress from Key Stage 1 to 2 are prioritised for additional intervention, as are those who are working below the level of expectation for their age. Class teachers are responsible for the content of these sessions although they may be delivered by a different teacher, HLTA or TA. Similarly, the class teacher is responsible for ensuring that those pupils who display a particular gift for mathematics or/and achieve at a level higher than expected for their age are appropriately challenged and supported to maximise their progress. This will include the provision of different, more appropriate work rather than 'differentiation by exhaustion' whereby pupils are simply expected to do more of the same.

Teachers will be expected to judge how much practice pupils need on particular skills. Whilst maths skills require practice, pupils who produce excessive amounts of practice with all of the sums being correct are not being appropriately stretched.

In maths lessons teachers will encourage independent learning whenever appropriate. Teachers will provide the mathematical challenge and will ensure that all the maths equipment that could and might be used is available for the pupils. The pupils will decide what equipment they might use to tackle the challenge and will collect these resources as needed. This will encourage the pupils to think through the process of solving the challenge or problem and minimise wasted learning time. Teachers will encourage the use of the correct mathematical terminology and will strive to incorporate the type of questioning of pupils that promotes good mathematical thinking. For example, the teachers might use one of these five sentence stems:

1. Can you convince me .....

2. Can you show me/prove to me .....
3. What is wrong with .....
4. What is the same or different .....
5. How could .....

## **Entitlement**

At Rodmarton Primary School, we teach mathematics to all pupils, whatever their ability or individual need. Through our mathematics teaching, we provide learning opportunities that enable all pupils to make good progress. Every child has an equal right to the maths curriculum in *daily* maths lessons of approximately one hour. There may be times when it is more appropriate for Foundation Stage or Key Stage 1 sessions to be approximately 45 minutes in length and for Key Stage 2 sessions to be over an hour. In addition, maths will be incorporated in other subject areas, separate maths challenges, times tables practice and in homework opportunities.

## **Special Educational Needs**

All children will have their specific needs met through differentiated work in conjunction with targets on their 'My Plans'. Support time is planned for and provided in relation to identified needs for individuals and groups.

## **Resources**

All classrooms have a counting stick and a number of small maths resources. In Key Stages 1 and 2 these can be found in clearly labelled trays. Mathematical dictionaries are available in classrooms. Some more topic specific resources (such as weights and scales) are located in well labelled centrally stored trays.

Information and Communication Technology can enhance the teaching of mathematics significantly. It has ways of impacting on learning that are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. A range of software and resources are available to support work with the lap top computers and i-pad minis.

Classroom walls will be used to display mathematics materials and the pupils' maths work. These resources should be used, habitually, by the pupils to encourage them to work independently and to solve mathematics problems. Displays relating to mathematics should take up at least one third of the display space available in each classroom. Displays will include concrete and pictorial apparatus to help support children to grasp concepts and mathematical vocabulary. The pupils' work displayed will be used to encourage a positive attitude and enthusiasm towards the subject.

## **Marking, Assessment and Recording**

Assessment for Learning is fundamental to raising standards and enabling children to reach their potential. Assessment in mathematics will take place daily using a range of strategies such as marking and feedback of work and

verbal discussions with children. This information will inform subsequent planning and next steps in teaching and learning. Planning will be annotated to demonstrate adaptations and provide feedback about children's individual/group progress.

Pupils' work will be marked in line with the Marking Policy and will model how corrections should be made, giving pupils a chance to learn from their misconceptions or incorrect methods.

Summative assessments are made at least once per term, six times per academic year. The outcomes of the assessments will be expressed in NC levels and sub levels (until such time as this method of measuring progress is changed) and will be entered into the school's online database system, Insight, by the class teachers. The data tracking will be considered by the class teacher, the teacher co-ordinating mathematics and the SENDCo. Pupils who are not making good progress over time can be targeted for support. The nature and extent of the support to be provided will depend upon the pupils' need. Work may be further differentiated for a pupil or a separate intervention used to enable that pupil to 'catch up' and make expected progress.

The mathematics subject co-ordinator will organise moderation and standardisation activities to ensure the accuracy of the assessments being made by the class teachers.

Targets are set at the beginning of each year and progress towards them is regularly reviewed, each term, throughout the year. However, in addition to these targets and the assessments recorded on the Insight Tracker, targets are also given to pupils in their maths exercise books. These targets are for pupils to achieve within a period of time between 4 and 8 weeks, approximately in line with a school term.

## **Parental Support and Homework**

We recognise that parents make a significant difference to the pupils' progress in maths and encourage this essential partnership. Homework is used for the following purposes:

- To practice a skill
- To learn something by rote such as times tables and formulae
- To revise for a test
- To explore a mathematical problem or question
- To research a topic