



PALMERS CROSS
Primary School

Maths Policy

Next review: September 2018

Purpose of study

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Timetabling

KS1 are timetabled to have five hours per week are dedicated to the discrete teaching of Maths.

An individual lesson may be broken down into smaller components such as:

5-10 minutes Oral Mental Starter	10-15 minutes Main teaching	20 - 25 minutes Task time	5-10 minutes Plenary
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KS2 are timetabled to have 3 (1 hour and 15 minute lessons) across the week and 2 (1 hour lessons) across the week.

An individual lesson may be broken down into smaller components such as:

5-10 minutes Oral Mental Starter	10-15 minutes Main teaching	20 - 25 minutes Task time	5-10 minutes Plenary
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Cross-curricular maths will be planned for when appropriate. Where topics in science, design and technology, history and geography can be linked to the application of maths skills, teachers will skilfully plan and deliver lessons that incorporate maths skills linked to their year group age related expectations (AREs).

Planning

A long term plan for Maths is created by each year group at the start of each academic year. This supports the requirements of the new National Curriculum for 2014.

Short term planning is written for every maths focus.

The MTP will also show brief details of the main teaching with key questions identified, a clear LO and STL and details about differentiation for the different ability groups.

All formal planning documents are uploaded onto the Learning Platform when completed.

These are then monitored and reviewed each term by the MSL and by LT.

Teachers should keep their own plans in their planning folders but also ensure that they are saved to the shared documents area on the Learning Platform.

New resources are always being purchased, so new ideas and plans are constantly being generated. It is important that we have shared electronic copies of these in order to save time and direct our energies into teaching in the classroom.

Resources are allocated to each year group to support the agreed range of work – staff should only use the year-appropriate resources or additional ones agreed by year group teams and the Subject Leader for maths.

Assessment

Regular standardisation and moderation meetings take place with all staff to ensure that teacher judgements are standard across school. These meetings also take place with other schools and within LA cluster moderation sessions.

At the end of each term, pupils have a formal assessment that is linked to the coverage of their long-term plans. In year one to six, pupils have a weekly times table and arithmetic test. In reception, teachers and teaching assistants with target small groups to work on counting skills and number bonds skills.

At the end of each term, teachers assess all pupils for maths. These assessments are tracked each term to identify pupils who are at the expected level or who are exceeding this level. This also identifies pupils who have not made progress or who are falling behind so that they can be supported and an intervention provided or SEN provision if necessary. Intervention groups (RAP groups) are prioritised by year group teacher through progress meetings at the end of each term. Teachers produced raising attainment planning to focus on key groups of pupils to bridge gaps in learning or challenge higher ability pupils in focused areas.

Homework

Maths homework is set regularly by class teachers (every other week - issued on Friday to be handed in on the following Wednesday)

Homework will include:

- maths games
- calculation practice
- consolidate a concept learnt in class
- investigations
- puzzles
- number bond or times table rehearsal

Monitoring of Teaching and Learning in maths

Monitoring of teaching and learning in maths consists of the following:

- ❖ Planning reviews
- ❖ Learning environment reviews (display, resources, procedures, learning prompts, etc)
- ❖ Sampling of books – book trawls
- ❖ Discussions in staff and phase teams – on-going professional dialogue
- ❖ Lesson observations by LT
- ❖ Talking to pupils – pupil interviews
- ❖ Moderation and Standardisation meetings within school and within the trust.

Inclusion

Setting suitable challenges

Teachers should set high expectations for every pupil. They should plan stretching work for pupils whose attainment is significantly above the expected standard. They have an even greater obligation to plan lessons for pupils who have low levels of prior attainment or come from disadvantaged backgrounds. Teachers should use appropriate assessment to set targets, which are deliberately ambitious.

Teachers and support staff

Through the School Governors, the Headteacher and the Subject Leader for maths, class teachers and support staff should strive to help our children to achieve their best.

They should:

- Put policy into practice
- Have high expectations
- Encourage pupils to use, manage and respect our resources
- Ensure that each child receives their entitlement
- Monitor and record progress
- Work with colleagues, learners and their families to provide a suitable and progressive curriculum in all aspects of maths.

All NQTs attend maths -based INSET as part of their induction. The maths subject leader will provide other INSET for all staff each term and attend INSET himself to cascade to all Staff. All staff also have the opportunity to identify areas of the curriculum that they would like training and support with and this is provided, where possible.

Assessment, Reporting and Recording

(National curriculum attainment targets:

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study).

Teachers will assess learning throughout lessons and adjust their teaching plans as necessary. National curriculum guidelines and Age Related Expectations will help to ensure children are taught skills at the correct level, and planning will be annotated with reference to children's acquisition of knowledge and development of skills. A monitoring timetable will include learning walks, book trawls, planning trawls and observations. Coverage of National Curriculum objectives will be monitored by the subject leader.

Health and Safety

All staff work in accordance with Health and Safety Guidelines. All visits will follow organisational procedures.

The role of the maths leader

Primary Purpose:

To be a Curriculum Leader; fulfil a curriculum and teaching role in accordance with the directions given by the Head teacher and Governing Body.

Directly Responsible to:

The Head teacher

Principle responsibilities:

To carry out the duties of a Subject Leader as outlined within this job description and with regard to Teacher's Pay and Conditions Document.

Professional Responsibilities as a class teacher:

Outlined in SPCD Professional Duties and Professional Standards, to particularly include:

- Assist in the delivery of school curriculum guidelines and policies
- Be responsible for lesson planning; meeting the needs of pupils within a variety of teaching groups
- Monitor and assess pupils' progress, ensuring appropriate records have been kept. Use performance data and assessment to inform individual, group and class targets, lesson planning and the preparation of differentiated work which meets children's needs and which challenges all.
- Participate in arrangements for Performance Management within agreed frameworks
- Contribute to the effective deployment of support staff and resources, including effective use of the school's ICT capability
- Comply with school policies and procedures including reporting, planning, staff meetings, assemblies, registration, playground supervision and participation in parental events
- Dress in a professional and appropriate manner, that will further support the school's policy on uniform
- Participate in further training and professional development as appropriate
- Be committed to supporting the school's extra-curricular activity program
- Ensure good order and discipline that result in high standards of behaviour
- Safeguard pupils' health and safety

Curriculum and Whole School Responsibilities

- Act as leader for maths leading and coordinating the learning and teaching within the subject
- Contribute to the school's programme of monitoring and self-evaluation to ensure high standards attained by pupils
- Support colleagues as part of self-review process encouraging the evaluation and sharing of good practice, report outcomes of monitoring activity to Curriculum Leader and Leadership Team.
- From evidence of monitoring and self-review activities contribute objectives to the School Improvement Plan and its termly review
- Establish resource priorities and monitor the effectiveness of resource usage and spending
- Help in creating reports and action plans for a range of audiences; Governors etc...
- Maintain a sound knowledge of statutory curriculum requirements and the procedures for assessment, recording and reporting of pupil progress to a range of audiences.
- Ensure staff have access to information and guidance relating to maths and liaise with professional development coordinator to ensure staff and school offer subject coverage and balance.
- Have total support of the school aims and ethos and the leadership drive to ensure them.
- Undertake any other duties or responsibilities which may be reasonably regarded as within the nature of the post or determined by the Headteacher
- Act as a role model for others through the setting of high personal standards of classroom practice. These to include the development of an effective learning environment that fosters high standards of achievement and behaviour.

Resources

Practical resources located in key stage one

Online resources saved onto our learning platform

Calculation policy with commentary

Resources linked to staff meetings are saved onto platform for all staff to access.

Documents to be read in conjunction with this policy:

National Curriculum for maths 2014

Calculation policy

Mental calculation policy

Bar modelling policy

Teaching and Learning policy

School marking policy

Blank planning proformas for LTP, STP.

NB all these resources can be found in the staff shared area on the Learning Platform.