

Manor Hall Academy



MATHEMATICS POLICY

CICELY HAUGHTON SCHOOL

Building Relationships

Celebrating Success

Promoting Change

CICELY HAUGHTON SCHOOL

MATHEMATICS POLICY STATEMENT

AIMS

The mathematics teaching at Cicely Haughton School is geared towards enabling each pupil to develop within their capabilities; not only the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance.

We are continually aiming to raise the standards of achievement of the pupils in Cicely Haughton School.

THE NATIONAL CURRICULUM

The National Curriculum for Mathematics describes what must be taught in each Key Stage. Cicely Haughton School follows the National Curriculum Framework, which provides detailed guidance for the implementation of the curriculum and ensures continuity and progression in the teaching of mathematics.

In Early Years, the curriculum is guided by the Reception Learning Objectives in the National Curriculum Framework.

PLANNING

Strategies for ensuring progress and continuity

PLANNING IN MATHEMATICS is a process in which all teachers are involved, wherein

- The foundation for curricular planning is the Whole School Development Plan, developed through a process of collaboration between staff, and approved by Governors.

Planning is undertaken at three levels:

Long term planning is based on the yearly teaching programmes set out in the Power Maths Scheme, in line with national curriculum objectives.

Medium term planning is based on the Power Maths Scheme and gives a guide to the topics that will be covered during each half term.

Short term planning is carried out weekly. Day to day amendments are carried out and planning is placed on to the Staff Share area for reference.

The medium and short term planning is collected and monitored by the maths subject leader and senior management team. Written and verbal feedback is given.

CROSS-CURRICULAR LINKS

Mathematics is taught mainly as a separate subject but every effort is made to link maths with other areas of curriculum. We try and identify the mathematical possibilities across the curriculum at the planning stage. We also draw children's attention to the links between maths and other curricular work so children see that maths is not an isolated subject.

In the Early Years, these links are more evident because of the less formal timetable.

TEACHING METHODS AND APPROACHES

THE MATHEMATICS CURRICULUM IS ORGANISED on a subject basis although topic work will often also include mathematical activities.

At Cicely Haughton, children are placed into personalised learning groups designed to support, stretch and challenge children in maths. These groups are based on the learning age that children are able to access, based on assessments from the national curriculum, rather than their actual age.

We follow the Power Maths Scheme of work which has been designed to support and challenge all pupils, and is built on the belief that EVERYONE can learn maths successfully. The philosophy behind Power Maths is that being successful in maths is not just about rote-learning procedures and methods, but is instead about problem solving, thinking and discussing. Children are encouraged to gain deeper understanding of concepts and gain a growth mindset approach to problem solving. A typical Power Maths lesson is structured in the following way:

- **Discover** - each lesson begins with a problem to solve, often a real-life example, sometimes a puzzle or a game. These are engaging and fun, and designed to get all children thinking.
- **Share** - the class shares their ideas and compares different ways to solve the problem, explaining their reasoning with hands-on resources and drawings to make their ideas clear. Children are able to develop their understanding of the concept with input from the teacher.
- **Think together** - the next part of the lesson is a journey through the concept, digging deeper and deeper so that each child builds on secure foundations while being challenged to apply their understanding in different ways and with increasing independence.
- **Practice** - now children practice individually or in small groups, rehearsing and developing their skills to build fluency, understanding of the concept and confidence.
- **Reflect** - finally, children are prompted to reflect on and record their learning from each session and show how they have grasped the concept explored in the lesson.

Whilst Power Maths is our main route of teaching, it may be that other schemes of work may be used to support intervention lessons, in which basic concepts are practiced in order to progress to the mastery activities. There may also need to be lessons that address misconceptions and gaps in learning due to the nature of the school and progress of children in previous schools, or owing to the disruption caused by the COVID-19 pandemic. In which case, a typical lesson may be structured in the following way:

- **STARTER ACTIVITY** (about 5 - 10 minutes). Whole-class work to rehearse, sharpen and develop mental and oral skills.
- **MAIN TEACHING ACTIVITY** (about 30 - 45 minutes). Teaching input and pupil activities. Work as a whole class, in groups, in pairs or as individuals. A pupil whose difficulties are severe may need to be supported with an individual programme in the main part of the lesson.
- **A PLENARY** to round off the lesson (about 5- 10 minutes). Work with the whole class to sort out misconceptions and identify progress, to summarise key facts and ideas and what to remember, to make links to other work and discuss the next steps, and to set work to do at home.

Mathematics is taught by class teachers and Teaching Assistants, who have received the relevant training in Maths National Curriculum and have received CPD on the new Power Maths scheme of work. Support is given by the Mathematics subject leader.

The teaching of maths at Cicely Haughton provides opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

At Cicely Haughton School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced.

We endeavour to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing. Children are continually praised for their 'journey to get there' with each class rewarding a 'Maths Star' or 'Power Maths Champion' of the week.

DISPLAY

We recognise the important role display has in the teaching and learning of mathematics by having maths work displayed in the school. Every class has a mathematics board, where possible in the main teaching area, which contains work pertinent to current topics/whole school targets, mathematics vocabulary and display materials that provide a visual support for the children's mental processes. Each class has the relevant Power Maths vocabulary on display in the room to provide continuity throughout the school.

Children's efforts are acknowledged with the use of praise, reward stickers and positive written comments on their behaviour sheets.

ASSESSMENT AND RECORD KEEPING

Assessment is used as a tool to inform planning.

Formative Assessment

(See Assessment Policy and Marking Policy)

The purpose is to:

- check that pupils have grasped the main teaching points
- clarify any misconceptions
- establish whether pupils are ready to move on
- check that pupils are remembering number facts and can use mental calculation strategies
- give information which will help with any necessary adjustments to daily planning

Formative Assessment targets will be closely matched to short-term objectives. The assessments will be made through daily observations, questioning and monitoring of pupils' responses, informal testing and homework. Children complete self-assessment based on their own thoughts on the objective. This is done in ways appropriate to the needs of each class group.

For each topic in Power Maths, children complete an end of unit test individually. This is used to gain an idea of children's level of understanding within that topic and informs next steps in planning, including setting 'strengthen' or 'deepen' activities.

Summative Assessment (medium term)

The purpose is to:

- Review and record the progress pupils are making over time in relation to the key objectives.
- Identify pupils' progress against specific individual targets.
- Help to plan work over the next half-term.
- Provide information to feed into end of year assessments.

Long-term Assessments

- Towards the end of the school year, pupils' progress and attainment is assessed and reviewed against school and National targets.
- Children are baseline assessed on entry.
- A teacher assessment is also made to sum up pupils' attainment. For Y2 and Y6 pupils the assessment is made against the National Curriculum Attainment Target Level Descriptors.
- A bank of evidence of pupils' work helps inform teacher assessment.
- Statutory guidelines regarding Assessment and Reporting requirements are closely adhered to.

Records of Progress in Mathematics kept for each child contain:

- An annual record of progress written into each child's Review Statement and Annual Report.
- The 'EAZ mag' format for identifying each zone from P Steps to Zone 6 is used for each child.
- Children undertake NFER testing to gauge both current ability and progress throughout the year. These can be used to identify gaps in learning and can inform personalised learning groups. NFER tests are done in Autumn, Spring and Summer Terms for Year 3, 4, 5 and in Spring and Summer for Year 1. Years 2 and 6 complete NFER tests in the Autumn and Spring Terms, with End of Key Stage 1 and Key Stage 2 results (SATS) providing the basis for Summer data.

Reporting

- Reporting is done annually through a combined Review/Annual Academic Report.

Reporting in Mathematics will focus on each pupil's:

- attitude to Mathematics
- competence in basic skills
- ability to apply mathematical knowledge to new situations

Statutory guidelines are followed regarding the reporting of SATs results at the end of Y2 and Y6 and future establishments are informed of progress and academic ability. Parents also receive half termly letters detailing the topics covered for their child.

RESOURCES

Resources for the delivery of the maths curriculum are stored centrally. Everyday basic equipment is kept in classrooms. Additional equipment and topic-specific items are stored centrally and referenced on Teachers plans if required.

Cicely Houghton School uses both online and paper resources from the Power Maths Scheme of work. Additional online resources required can be accessed through a number of resources purchased by Cicely Houghton School and physical resources from the central storage.

Materials are constantly updated, as new and relevant items become available. The maths post holder orders new resources after consultation with the staff.

EQUAL OPPORTUNITIES

As 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.

HOMEWORK

Children are given mathematics homework once a week. The amount of homework is set between 15 and 30 minutes. Not all homework is written work, which needs marking. We encourage teachers to set work, which makes use of the home context or using online resources.

The school has achieved dyslexia friendly full status and as such will give due regard to dyslexia friendly strategies and objectives.