

Caldecote Community Primary School



Numeracy Policy

**‘Care, Challenge, Persevere, Succeed – we are
Caldecote!’**

Draft completed January 2023 by KR and GO
Ratified by Governing Body
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Numeracy Policy

1. Aims and objectives

- 1.1 Our principle aim in numeracy is to develop the children's mathematical fluency, reasoning and problem solving skills. By doing so, children will have the confidence and skill to tackle mathematical challenges faced everyday in life. Through teaching, children will be equipped with the skills and knowledge to understand numbers and the number system, calculation, fractions, measurement, geometry and statistics. These skills will enable them to confidently, and independently, contribute across a broad spectrum of challenges and, in the future, vocations.
- 1.2 The aims of mathematics are:
- To promote enjoyment and enthusiasm for learning through challenging and engaging practical activities, where possible.
 - To encourage discussion, investigation and presentation of mathematical problems through a variety of techniques and styles.
 - To promote confidence and competence with numbers and the number system.
 - To develop problem solving, decision making and reasoning in a variety of contexts.
 - To develop a mastery of maths concepts appropriate to age and ability.
 - To develop methods and understanding of how information can be gathered, organised and presented.
 - To explore shape and space, understanding their practical use.
 - To use and evaluate a range of measuring tools in a variety of contexts.
 - To have a precise understanding of the importance, and the role, of mathematics in today's world.

2. Teaching and learning style

- 2.1 The school uses a variety of teaching styles during lessons, aimed at accommodating the learning styles shown by the children. With the school's principle aim in mind, numeracy is taught on a daily basis. These lessons incorporate whole class, small group and independent teaching and learning. With problem solving, reasoning and calculating a main aim, teachers put emphasis upon them. Lessons regularly incorporate these elements and the children are encouraged to tackle these using the knowledge they have acquired throughout their schooling. Direct, whole class teaching is used for modelling new techniques or skills, recapping or evaluating through comparison. There is an emphasis across the school upon the children challenging themselves, applying their own knowledge and skills to increasingly complex problems and contexts, and becoming independent mathematical practitioners.

- 2.2 In all classes there are children with differing mathematical abilities and learning styles. These differences are incorporated into numeracy lessons, with tasks being planned to be appropriate, yet challenging. The children are supported through a range of strategies, including group learning, partner work, use of practical equipment, problem solving to develop mastery, numeracy games and small group or one-to-one support if required. Even so, all children are encouraged to ask and answer questions, to explain and reason their ideas and solutions, to evaluate and assess their own learning, to relate their learning to practical situations, to present research and findings, and to use a range of tools to enable them to do so. Furthermore, the use of ICT is greatly encouraged to enable the children to reach their potential and tackle challenges through another medium.
- 2.3 Across the school, an additional 15 minutes per day should be spent learning and practising core mathematical knowledge (number bonds, multiplication tables and counting) and securing tricky concepts.

3. Curriculum planning

- 3.1 Mathematics is a core subject in the National Curriculum and as such the National Curriculum is used as a basis for implementing the statutory requirements of study.
- 3.2 Planning in numeracy is taken from the Caldecote Curriculum. Here, the objectives from the National Curriculum and the Government's Ready to Progress materials are mapped out to ensure that children have full coverage of their current year group curriculum and opportunities to revisit the objectives from the previous years. In addition, starter activities are aimed to secure fluency and efficiency in calculation. The Caldecote Curriculum shows the key objectives and appropriate vocabulary. In school, each year group uses this document as their medium term plan. However, it is adapted as required for each class or year group, with class teachers consulting their APP evidence sheets and cold task analysis. These inform appropriate starting points to determine pitch and progression for all ability groups and demonstrate the high expectations encouraged by teachers. Objectives are set using the Caldecote Curriculum, APP sheets, cold-task analysis and previous lessons.
- 3.3 There is no formal requirement for short term, or weekly planning. Teachers are asked to use the National Curriculum, as mapped out in the Caldecote Curriculum, to create a sequence of objectives for each unit. The main emphasis is on teachers considering the journey that the pupils will take to secure the objective set. Teachers are also expected to

consider plenaries, differentiation, directed support, key vocabulary and key questions.

- 3.4 It is encouraged that year group teams work together to devise their sequence of objectives to ensure consistency. Review of the planning is done via discussions with teachers by the Numeracy Leader and/or Head teacher as part of the deep dive monitoring process and is to provide professional feedback to enable development of both teaching and learning.

4. Assessment

- 4.1 The assessment of each child's progression is a continuous and essential element of teaching. Class teachers assess during each lesson through marking, feedback, discussion, reflection, questioning and explanation. This kind of short term assessment enables the teacher and the child, to consider if and how the learning intention has been achieved. These judgements will have an effect upon future lessons and activities, depending on each child's learning outcome.
- 4.2 APP sheet assessments will be kept by each class teacher across Key Stage One and Key Stage Two. These are used to inform class teachers of the level achieved across the various numeracy disciplines, areas of strength/weakness, next steps for learning and planning for all children within the class. Evidence for these assessments is collected or referenced upon the sheets throughout the school year and this includes written records, verbal discussions, photographs, presentations, cross curricular learning, etc. At present, teachers have been asked to identify evidence for each objective away from the point of teaching in order for it to be classed as 'attained'.
- 4.3 At the end of the school year, the APP information is passed along to the next class teacher, with any specific guidance accompanying. At the start of the following school year, all teachers begin new APP assessment, referencing the previous learning and attainment as required.
- 4.4 To support the APP assessments, children can be given maths activity mats to complete independently during booster sessions. These provide the teacher with a further source of knowledge from which to assess children's retained knowledge away from the point of teaching and learning.
- 4.5 To further support the APP assessments, statutory national tests provide evidence and support for assessments made. These tests are carried out by Years 2 and 6. In addition, the statutory Multiplication Table Check is

carried at the end of Year 4, with results being utilised to address any specific areas of weakness.

- 4.6 'RAISEonline' is used to enable the subject leaders to identify any further areas of development, trends in or between year groups, help with target setting, and identify groups of children that may require intervention, such as EAL children. 'RAISEonline' also enables the numeracy subject leaders to create performance statements for the school's Self Evaluation Form.

5. Special educational needs

- 5.1 As mathematics is a statutory requirement of the National Curriculum, all children are provided with a variety of tasks and challenges, in order for them to achieve the expected aged related levels. Continuous teacher assessment enables the school to set appropriate, progressive and challenging tasks, with an emphasis on the mastery approach of 'all moving together'. To achieve this, teachers need to consider how to support the children to achieve the same objectives as their peers – this can be through intervention, resource or in class support.
- 5.2 Within Numeracy, intervention is deemed a requirement when a child has not secured their understanding of the concept taught to be ready to move onto the next. To enable Caldecote to adopt the mastery 'all moving together' approach, teachers identify children who require some more support daily and TAs deliver appropriate sessions to secure the understanding before the class moves on to the next concept.
- 5.3 Intervention through SEN Support and EHC Plans, leads to the creation of an Individual Education Plan (IEP). This IEP will highlight specific long term and short term targets for that individual. Through class, group and one-to-one learning, each child aims to achieve these targets. With the objective set at raising attainment; regular assessment, discussion and reflection will highlight progression or a need to re-evaluate and amend the intervention in place.
- 5.4 In addition to the immediate intervention to support conceptual understanding, teachers may identify children who require more support to consolidate their knowledge of key mathematical facts, such as number bonds or multiplication tables. In the event of this, Assistant Headteachers, the SENCO and Numeracy Leads will work together to timetable a suitable intervention to support these children and close the gap.

- 5.5 In order to close the attainment gap, the Numeracy Leads, alongside the assessment coordinator and Headteacher, identify children who are working significantly below age-related expectations (at least an academic year below). These children will be highlighted to the teacher as 'Weaker Mathematicians'. Teacher will assess and work with these children, focusing particularly on the Ready to Progress targets to aim to close the gap. Teachers utilise Numeracy Booster slots to work with these children in small groups to increase the impact of the intervention.
- 5.6 As a school, Caldecote has adopted a Mastery rich curriculum. This enables children of all levels to secure their mathematical thinking through more complex problems rather than using more difficult numbers. Mastery thinking opportunities should be available to all children of every level in all lessons.

6. The Foundation Stage

- 6.1 Within the Foundation Stage, numeracy is taught with the Foundation Stage Profile and the Early Learning Goals in mind. Children face a variety of numeracy tasks and challenges which focus on number, measures, pattern, shape and spatial reasoning. These tasks often have links to other subject areas and encourage exploration, enjoyment and the use of mathematical vocabulary.
- 6.2 The Reception children at Caldecote follow a Number Study curriculum to ensure the mastery of numbers, the number system and counting up to 10 and beyond. The NCETM Progression documents are used to inform the planning of each Number Study. Children will learn, explore and work with a particular number for up to 4 weeks before moving onto the next number and value. In Nursery, the children are introduced to counting (including cardinality) and comparison (Focusing on sorting and both perceptual and matching of objects). In the Summer term, the children will be introduced to the composition of a number which feeds into the Number Studies taught in reception.
- 6.3 Teachers and assistants assess the children through the course of the day or during specific mathematical tasks and this informs future planning. In the Summer term, these assessments inform the end of year 'Early Years Foundation Stage Profile'. Children who achieve the Early Learning Goal in the Prime areas (Communication & Language, Physical Development and Personal, Social and Emotional development) along with literacy and Mathematics will be considered to have reached a 'Good Level of Development'.

7. Mathematics across the curriculum

- 7.1 The use of mathematics across the broader curriculum and across a range of contexts is greatly encouraged, as this enables the children to understand that numeracy is not a single entity. It is important for the children to see how their knowledge of numbers, measures and data can be used in greater range of subjects and contexts.
- 7.2 Specific mathematic links are encouraged during Science, Geography, History, and Art and Design. In Science, measures and statistics play a critical role in experimenting and when presenting results. Mathematics has a place in Geography, through usage of co-ordinates, distances and statistics. Art and Design sees the use of measures, angles, geometry, etc. Teachers encourage the children to see these links, draw upon their established skills and evaluate which techniques would enable them to achieve the best outcome. The subjects outlined are not the exclusive opportunities for mathematics across the curriculum, but an example of different opportunities.

8. Links to other schools

- 8.1 Links with other schools are seen as an important part of developing our practice. These links enable the school to share ideas and resources, lend support and aid in teacher assessment.
- 8.2 With these links developing, the next steps will focus on how the children can interact with children from other schools. This may be in the form of joint mathematical projects, field studies, interactive investigation through the use of ICT, and possibly, mentor links between individuals.

9. Resources

- 9.1 There is a great variety of resources available to support and develop the teaching of mathematics. The school has a central resource base available to the whole school, which has a range of tools and equipment. Furthermore, all classrooms have access to their own resources, deemed essential to the every day teaching of mathematics. As the role of ICT has increased in lessons, our range of available software gives children and teachers access to a broader range of problems, investigations, presentations and 'real life' situations. Children also take great advantage of the internet, which enables child led learning and consolidates skills. All ICT resources are assessed before purchase, the central base of

resources has continual replenishment and individual classroom requirements are catered for, as appropriate.

10. Monitoring and review

- 10.1 The monitoring of the children's progress, assessments, planning and teaching, is the responsibility of the Numeracy Subject Leaders. Support and advice will be given through leadership Network meetings. The role of the Numeracy Subject Leader also involves supporting colleagues in their teaching of Mathematics, keeping informed of current developments, and giving the school a strategic development plan.
- 10.2 During the course of the academic year, the Leaders will review, assess and implement a planning strategy, if required. They will also observe lessons and review the learning completed in each year group, highlighting strengths/weaknesses and, if required, colleagues that need support. This will also take into account the use of assessment. Is it being used effectively? Does it support planning? Is there the correct evidence to support the assessment? Furthermore, Pupil Progress meetings will enable the teachers to highlight individual children that are not progressing as required and, in turn, seek support, ideas or intervention from the Subject Leaders.
- 10.3 The Numeracy Leaders will also give the Head Teacher a yearly review of progress and create an action plan for the School Improvement Plan (SIP). These targets will be created after evaluating the previous years' progress and areas that require focus. The evaluation of previous targets and the creation of new targets will also be shared with an allocated member of the school's governing body.
- 10.4 Furthermore, it will be the responsibility of the Leaders to apply for budget allocations from the Head Teacher during the school year to purchase necessary resources and equipment.

Signed:

Date: September 2024