Cotmanhay Infant and Nursery School	**Maths Policy**		
	☐ **Complete Revision** ☒ **Partial Revision** ☐ **New** ☐ **No changes**	**Review cycle:** **2 years**	**Pages:** **9**

Author of the policy:

☐ **Derbyshire County Council**	☒ **School based**	☐ **Other**
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If Derbyshire County Council / DfE, which issue number: N/A

Issue 1	Issue 2	Issue 3	Issue 4	Issue 5	Issue 6	Issue 7	Issue 8	Issue 9	Issue 10

REVISION RECORD:

Review date	Revised by	Comments
October 2023	AS / KG	Revised and updated in line with Mastery / Fluency
November 2025	KG	updated in line with new EYFS statutory guidance and linked to oracy added retrieval in KS1. Small tweaks made throughout. Working wall updated for assessment and retrieval

We are committed to safeguarding and promoting the welfare of children and young people and expect all staff and volunteers to share this commitment.

Cotmanhay Infant and Nursery School

Maths Policy – November 2025

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Introduction

The purpose of this policy is to describe our practice in teaching mathematical skills and the principles upon which these are based.

Aims:

In the EYFS we aim to provide a happy, secure and stimulating environment, in which the children can develop socially, emotionally, physically and intellectually both indoors and outdoors.

- Develop skills and concepts that will provide a good foundation for future learning.
- Develop a lively and enquiring mind through encouraging children to make their own choices, developing their perseverance, independence, co-operation and concentration.
- Encourage the children to express themselves clearly and to communicate their ideas developing their skills in speaking and listening.
- Develop physical control in both large and fine motor skills.
- Ensure planning, assessments and routines are sensitive to the child's needs.
- Teach in an exciting, fun, enthusiastic manner to ensure children are fully engaged and inspired with their learning and make the best possible progress. Starting with what children can already do.
- Develop children's independence and ability to tackle problems confidently.
- Teachers deliberately create opportunities for pupils' purposeful talk, through their design of lessons and tasks, including generalisations, sentence starters, stem sentences, and questions asked by pupils.

At KS1 we aim for all pupils to have the opportunity to:

- Become fluent in the fundamentals of mathematics, so that pupils develop conceptual understanding and the ability to recall, retrieve and apply knowledge efficiently and accurately.
- Reason mathematically by following a line of enquiry, noticing relationships and making connections, and developing justification or proof using mathematical language.
- Solve problems by applying their mathematics to a variety of routine and non-routine problems, breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Develop an awareness of the relevance of mathematics in everyday situations.
- Recognise what they have done well against learning objectives and identify their next steps to make continued progress.
- Be well prepared for the next stage of their learning.

Wider school aims:

This policy supports our aim to raise attainment in mathematics and for all our pupils to be confident, happy learners able to explain their reasoning in maths activities. We follow a mastery approach in line with the Key Stage 1 mathematics curriculum 2014 and recommendations for EYFS, whereby all pupils can achieve by providing opportunities for them to develop the deeper understanding of the key concepts they need to make secure and sustained progress over time. We recognise the importance of active learning and that concrete, practical, hands-on learning using a range of resources and manipulatives should be included for all children, alongside working pictorially and in the abstract to solve mathematical problems. We recognise that learning through play makes the curriculum more accessible for all our children and maximises their chance of success. We aim to provide a creative, relevant and enjoyable curriculum for all our children and staff.

Consultation:

This policy was written by April Stenson/Kerry Gillott, Maths leaders in consultation with:

- Katy Latchford, Headteacher
- Saphron Foster, EYFS leader
- Sarah Dawson, Assessment leader.
- Briony Stallard, KS1 leader.

Sources and references:

Key Stage 1 mathematics curriculum 2014

End of Key Stage Assessment frameworks

EYFS curriculum policy

Birth to 5 matters

EEF – Improving mathematics in the Early Years and KS1

ECAT

White Rose Education Reception Guidance

nrich.org

Teaching for mastery Y1 and Y2 documents (NCETM)

White Rose Education Schemes of learning for Y1 and Y2

NCETM Mastering Number programme

Mathseeds

Purple Mash website

Twinkl

Calculation guidance document (EYFS and KS1)

Feedback policy – March 2023

Numeral formation statement – Dec 2019

Assessment policy

Optimum O track

Procedures and practice

Definition:

Mathematics is a core subject and as such has a high priority at our school. An appropriate proportion of our week is devoted to mathematical learning and every opportunity is taken to practise and develop mathematical skills during and outside of discrete lessons every day.

EYFS is following EYFS statutory guidance and Developmental matters and KS1 is following the National Curriculum for Mathematics 2014.

Equal opportunities:

We are committed to challenging racism, sexism, and discrimination. We aim to promote justice, equality of opportunity in the fair treatment for all and thereby allow all pupils to achieve the level of success and self -respect which they deserve. We use resources which reflect cultural diversity and are free from discrimination and stereotyping.
We encourage our children to be aware of the British Values and to listen to each other's views and treat them with respect, even if their views are different to our own. We encourage pupils to follow our school and community rules and know the consequences when they are broken.
All activities are planned to ensure that lessons cater for different learning styles and levels of ability so that all children keep up rather than catch up. This may mean small group, one-to-one teaching and learning or the use of additional resources to enable individuals to make progress and meet their potential.

Health and safety:

Classroom maths resources are stored safely, with all resources accessible to children in boxes or trays, drawers, or cupboards and within easy reach.

Online safety:

Pupils are taught the online safety rules throughout all aspects of the curriculum. This is embedded throughout the school and pupils are aware when using maths online programs, to keep passwords private and to tell an adult if they are worried.

Planning:

In the EYFS planning is in line with EYFS guidance and the interests of the pupils. Planning aims to build upon what the children already know and can do and matches their different levels of abilities and needs. The planning objectives within the EYFS are taken from the Developmental Matters from the EYFS Guidance and Birth to 5 Matters. Medium term planning identifies the intended learning, with outcomes, for children working towards the Early Learning Goals. Cubs and Bears planning is supported by White Rose EYFS resources. Reception teachers use White Rose Education schemes of learning, Twinkl and the YR NCETM Mastering Number Programme. Medium Term Planning is saved on SharePoint and weekly plans are displayed in classroom and learning spaces. We also use the NCETM reception Mastering Number programme to promote mathematical fluency.

Key Stage 1 planning builds on what has been achieved during the child's time in EYFS. Medium Term Plans are developed from the Y1/Y2 White Rose Education schemes of learning. The objectives and age-related expectations of the national curriculum 2014 are broken down into smaller steps. These plans are saved onto SharePoint. The 'Teaching for mastery' Y1 and Y2 documents (NCETM) provide additional information and ideas to support our planning. We also use the NCETM Y1/Y2 Mastering Number programme to promote mathematical fluency.

Teaching staff meet weekly in year group teams to discuss and modify medium term plans and to plan for the following week. This ensures consistency of coverage across the year band and the sharing of strategies and resources. Note is taken of individual class learning needs and assessment information to inform future planning. Planning is saved on SharePoint, which can be accessed by all staff, and weekly plans are shared with TAs and displayed on planning boards in all classes.

A programme of staff training ensures a continuing dialogue about how children learn concepts in mathematics and develops good practise.

Weekly planning may show:

- Class information – number of pupils/DP/SEND.
- Learning Objectives, referencing end of year outcomes where appropriate.
- Suggested timings for each part of the lesson.
- Oral and mental maths starters.
- Whole class teaching input.
- Opportunities for the children to practise and consolidate competence with taught methods.
- Variation for ability groupings and individuals where appropriate.
- Opportunities for individual, paired, group and whole class learning.
- Opportunities for pupils to apply their learning in new ways to solve problems, including 'real life' everyday mathematical situations.
- Mini-plenary and whole class plenary sessions.
- Manipulatives and other resources, learning aids required.
- Adult supported and independent learning opportunities.
- Mathematical vocabulary to be modelled by staff and used by pupils to support verbal reasoning.
- Questions for Afl (assessment for learning).
- Annotations for pre-teach, absentee catch-up and same day intervention requirements as appropriate.
- Links to other curriculum areas, including computing.

Copies of medium-term plans are submitted to the Headteacher at the start of every term and weekly plans are monitored over the year with feedback given by the maths leader and SENDCO.

Teaching:

Maths opportunities are integrated daily in the Cubs and Bears EYFS settings. Staff plan for the individual child using sensitive observations and assessments. This teaching is a complex process and the style is either planned beforehand or can be spontaneous. Strategies for teaching and learning will vary and will be adapted to suit the needs of the children but are based on what the child can do, play and having fun. Early Years staff recognise the importance of being well prepared, organised, teaching with enthusiasm and using highly stimulating and exciting resources to inspire children to learn and to develop understanding.

The planned teaching of mathematics in Reception and in Key Stage 1 takes the form of a daily maths lesson or extended maths mornings of 2 linked consecutive sessions. In addition to this all classes offer a daily maths fluency session of 15 minutes following the NCETM programme for Mastering Number. Ongoing daily opportunities which integrate aspects of maths throughout the day also occur.

Discrete lessons may include:

- An oral/mental starter session with opportunities to develop and secure children's calculation strategies and recall skills, with an emphasis on interactive involvement. WRE Flash back 4 is often used to consolidate previous learning and focus upon prerequisite skills needed for later in the lesson.

- Direct teaching of the whole class with teachers and TAs (under the direction of the class teacher) using a variety of methods, representations, and concrete resources to meet different learning needs. Sometimes a problem will be introduced on a 'low threshold, high ceiling' basis, which is then solved in different ways and extended during the rest of the lesson. The required vocabulary will be revised or introduced. TAs may work with individuals to support their access to the main teaching or teach the same content with an identified group at a slower/faster pace. Additionally, they may be engaged in pre-teach/absentee catch-up.

- Opportunities to practise and apply mathematical skills - deepening knowledge and understanding. This may take the form of small group work, differentiated to the needs of the group. It may be adult led, involve paired tasks or an opportunity for independent learning. It may involve pupils working practically, pictorially, or mentally or a combination of these methods to help build conceptual and procedural knowledge. Pupils who grasp concepts rapidly will be moved on to more demanding or 2 step problems to deepen understanding and knowledge, not onto new content for the next year group. Pupils are encouraged to use their maths talk to support their maths reasoning, alongside using images and apparatus.

- Plenary – This may be at the end of the lesson, or as mini-plenaries part way through to ensure the maximum impact for the learning. It may be with small groups or with the whole class to develop learning and address misconceptions. Plenary sessions will refer to the key objectives of the session.

- Afl opportunities will occur at all relevant parts of the lesson. Live marking occurs wherever possible and same day intervention. (See feedback policy for more information).

- Outdoor learning will be promoted where appropriate and occurs daily in the EYFS.

Teachers have a secure knowledge of the progression of maths skills and the appropriate steps for teaching and learning in calculation. See Calculation guidance document (EYFS and KS1).

Teachers develop and consolidate pupil's understanding and confidence in their abilities using careful questioning, including as many pupils as possible and targeting individuals to take account of specific abilities and needs.

Teachers model and encourage pupils to use correct mathematical vocabulary and pupils practise and repeat key stem sentences. Pupils are required to explain their methods and reasoning by responding to questions such as 'Prove it! True or false?', using their 'Maths Talk' in precise and accurate ways. Vocabulary is displayed in key places around the learning environments and are referred to frequently.

Every effort is made by teachers to make learning in mathematics relevant and enjoyable. Links are made to other subjects wherever possible, so that opportunities arise whereby mathematical skills can be applied in a purposeful and meaningful way. Enrichment activities are sought to support this.

There is a strong emphasis on learning through play and children developing independent learning skills. Pupils are encouraged to follow their own maths learning in their independent time and learning environments have spaces to display their self-led work.

In Reception maths work is stored in a folder in date order. In Y1 and Y2 written work is stored in a folder or completed into 'Number' books with squared paper. The recorded work in books showcases learning and progress within place value, addition, subtraction, multiplication, division and fractions, geometry, measures and statistics. Problem-solving activities involving the application of calculation skills are represented throughout. Over the course of a pupil's schooling, the use of worksheet material will become less evident and more work will be recorded directly into their maths books where appropriate.

The learning environment:

- All learning environments are 'maths rich'. Relevant vocabulary is displayed in many places where it can be referred to.

- There are a variety of resources and manipulatives available for pupils to use, carefully selected by teachers to support the learning objectives.

- In every learning space we aim to provide our children with varied and relevant learning prompts that are displayed clearly and pupils are encouraged to look for and use these. These may include visual number lines and number grids, multiples count patterns, number facts posters for bonds to 10/20 and 100, working walls to support with retrieval from the previous weeks' learning.

- Independent maths zones in each class provide opportunities for pupils to follow their own investigations in maths. Relevant resources are nearby with equipment for pupils to record their work and with a space to display their outcomes.

Cross curricular skills:

- Handwriting, presentation, and Numeral formation (see statement).

Many activities take place to develop early fine motor skills and to build the muscle strength necessary for writing. Staff in the nursery settings have completed the ECAM programme (Every Child a Mover). Reception use "Dough Disco" and Pilates to develop muscle strength and finger control. We provide writing aids for children who require support with their fine motor (writing slopes, pencil grips, chunky mark-makers). EYFS use visual clues and verbal chants to help secure correct numeral formation. Numerals are displayed in many places around the classroom. There is a strong emphasis upon good presentation and incorrect numeral formation is always challenged. Children are encouraged to use numeral formation clues to edit their work throughout school.

- Language – receptive and expressive.

Competent speaking and listening skills are crucial to the development of pupils across all areas of the curriculum. Many of our children find that their difficulties with language are a barrier to learning. We aim to address this with many programmes in school such as Speech Link, ECAT, Makaton and support from SALT. 'Talk time' groups support identified children across school to develop their communication skills and their ability to use language to express themselves. Learning environments maximise opportunities for speaking with interactive displays and activities. Teaching opportunities develop and encourage good speaking and listening skills via the use of carpet 'Talk partners' and paired and group investigations. Each class displays interesting and new maths vocabulary as it arises from the maths learning each week ('Word Aware' training.) There is a strong focus upon using stem sentences within the WRE schemes of learning and the Mastering Number programme which underpins all our teaching.

Organisation:

Homework/parent partnership:

Parents are involved in their pupil's mathematical learning in the following ways:

- Maths objectives are included in the parents Termly Parent information sheet. These are posted on Class dojo and a paper copy is sent home at the beginning of each term. This includes the key vocabulary for the maths content that will be taught and definitions of terms.

- The weekly 'Cotmanhay Champion' assembly shares and celebrates effort and a range of achievements, including maths. Pupils receive a certificate, a prize and are named on our class dojo pages.

- Parents receive a set of maths targets for their child two times a year (November and March) and an end of year report (July). In Reception the targets contain objectives relevant to the current teaching programme. In KS1 targets are split into 2 levels of attainment: working towards the expected standard/working at the expected standard and working at the expected standard /working at greater depth within the expected standard. These are discussed at parents evening in the Autumn and Spring term. Targets are sent home in the Summer term with the opportunity for the parents to discuss these if they wish.

- Parents can look through their child's workbooks at parent consultation evenings.

- Teachers are available before and after school every day if parents have concerns about their child's progress in maths.
- In the EYFS parents can access their child's online learning portfolio on dojo and submit evidence of their children's experiences at home.
- Specific parents may be approached by the CT and given resources for additional practise at home. Any request for support from parents is always met.
- Parents can access useful advice, fun games and resources on the school website and on their year group class pages.
- Parents also have their child's password for Purple Mash in order to access Mathematical activities online at home.
- Mathseeds is an online mathematical learning programme for pupils to work through with parents at school and at home. This provides the basis for our homework provision. A task is set weekly in all reception and Key Stage 1 classes.
- Parents are invited to EYFS and KS1 information meetings setting out what their children will be learning in maths and how we structure the lessons. Parents' are invited to give written feedback and to ask questions directly.
- Pupils are invited to take part in additional events throughout the year which raises the profile of maths in school, such as the' NSPCC Number Fun' day. This is then shared with parents on class dojo pages.
- Parents are made fully aware of other mathematical opportunities which enrich learning in maths, such as MoneySense workshops and on-line lessons.
- Every effort is made to seek feedback from parents in the form surveys throughout the year.

Resources:

The maths leader has responsibility for the annual budget and will seek the views of colleagues and consult the maths action plan before prioritising what to buy.

Many maths resources are stored in centrally located cupboards and are clearly organised and labelled.

Teachers store key resources in class to be used on a daily basis such as number lines, 100 grids, number fans and numeral cards, and a range of manipulatives (Numicon, Unifix cubes, Dienes apparatus, Cuisenaire Rods, 10s frames, place value counters and money). These resources are accessible to all children, stored where they can easily be reached and clearly labelled to encourage independence.

Each class has an area or 'zone' devoted to learning in maths which provides an opportunity for all children to practise maths skills independently, consolidating skills and extending learning through play. Useful maths vocabulary and method prompts are displayed so children may use these to help with calculations or other independent maths 'challenge' activities.

Assessment:

In the EYFS assessment takes place through on-going observations, some evidence is shared on the online program 'class dojo' which contributes to each pupil's Learning Journey. Cubs and Bears complete key skills target tracking which helps to inform future planning and this is used to support a detailed final report at the end of the year in the Bears Nursery and the Two-Year Development report in the Cubs Nursery.

At the end of the Reception year, the pupil's attainment is recorded on to the Early Years Foundation Stage Profile and parents are informed if their child has achieved an emerging or an expected level of development.

Observations of teaching, pupil discussions and work samples ensure all pupils are on track to achieve the best possible level of progress and attainment. Children's progress is closely tracked every term so any child not making the expected progress will be identified and a programme of support can be put in place.

For more information about assessment in our EYFS please refer to our EYFS policy.

In KS1 assessment for learning is embedded across school and takes place during every lesson. Assessment information is used to inform planning to ensure that the work is pitched at the correct level to move every child forward in their mathematical learning. Pupils should be able to say what they have been working on and what they have done well and what they could do to improve.

This is supported by the working wall. These show skills and methods which serve as a prompt when pupils need to retrieve previous learning. Teachers can refer to these during lessons and pupils are encouraged to refer to the working wall and use as a tool to monitor their own learning.

Work is marked in accordance with out Feedback policy and includes live marking and summary feedback. Wherever possible time is provided for pupils to edit their own work and respond to marking the same day.

Where misconceptions have been identified during a teaching session or following marking, intervention will address this as soon as possible. This may involve the whole class in the following session, or by a teacher/teaching assistant working with a single pupil or a small group to provide additional teaching. In this way all the pupils can be kept moving together through content at broadly the same time.

Specific assessment may take place at the end of a block of learning to gain a clear picture of the individual child's level of understanding of a concept or skill and to identify gaps in learning.

Formal assessment occurs towards the end of certain term.

Attainment tests designed by the maths leader are completed in Y1 at the end of T1, T2, T3 and T6.

In Y2 the maths leader has designed assessments for the end of T1. Former SAT assessments are used at the end of T3. The most current SAT is used during the assessment period in T5 and to support judgements against the end of key stage expectations in T6.

Testing supports CTs with their judgements when entering data on Sonar. Y1 and Y2 teachers input mathematics data for each child onto O track 3 times a year. Whole school moderation of pupil books and within a year band also helps to ensure that teacher assessment judgements are consistent.

The Maths lead uses assessment information to create cohort summaries for Y1 and Y2 following year group testing which provides a comparison between classes within a year group and monitors patterns in pupil progress. In this way difficulties can be identified swiftly. If a child is not making expected progress, they will receive extra support through a targeted group intervention or one to one activities with a teaching assistant, planned by the teacher.

If the assessment information shows a trend or a pattern over time this will be addressed on the maths curriculum action plan.

For more information about marking and assessment please see the relevant policies.

Monitoring and review:

The Maths leader is responsible for monitoring teaching and learning in mathematics, supported by the Headteacher, SENDCo and EYFS Lead.

Monitoring needs are identified from the overarching School Improvement Plan review and the Maths curriculum action plan and a yearly monitoring overview is produced in consultation with the assessment leader.

Monitoring mathematics takes the following forms:

- **Lesson observation and feedback, including dual observations with EYFS lead, Senior leaders, School improvement advisor and the Headteacher as appropriate.**
- **Peer observations and lesson studies as a means of sharing good practise.**
- **Learning and environment walks - monitoring the environment in all learning spaces**.

- **Work/book scrutiny.**
- **Pupil discussion.**
- **Moderation of expected progress within year groups in our school and against samples with other local school and national exemplars.**
- **Planning scrutiny.**

Monitoring takes place throughout the year and is recorded on the monitoring overview. Governors are invited to attend monitoring sessions as appropriate. We recognise that monitoring has an important role to play in maintaining high standards in Maths and raising attainment at our school. Written and/or verbal feedback follows monitoring to ensure it has impact and informs good practice, both to individual practitioners and as updates shared with all staff. A mid-year review of the Maths Curriculum plan is shared with staff and Governors as well as an annual review. Any issues arising from monitoring will be addressed by the maths leader and will form part of the next maths curriculum action plan.

Governor approval date:

Next review date: November 2027