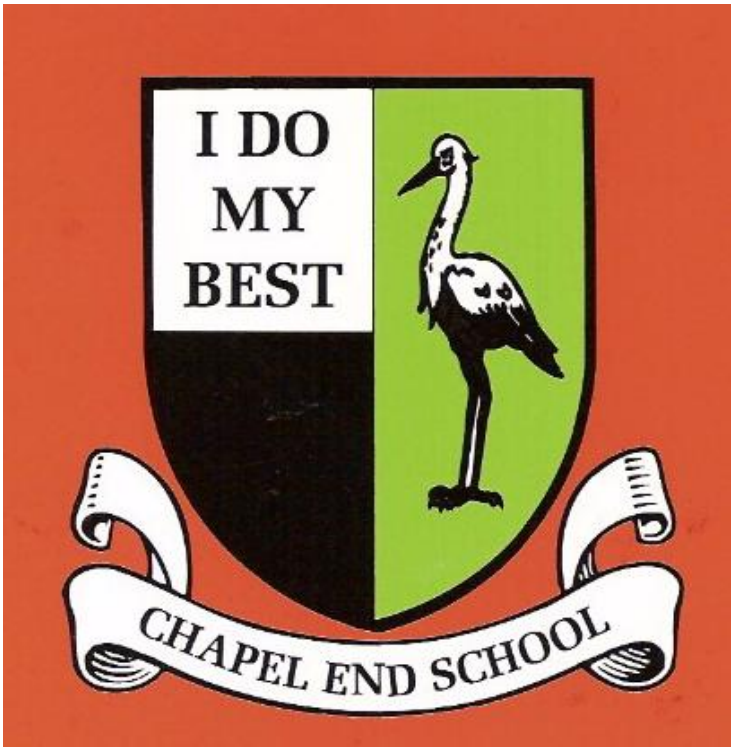


Chapel End Primary School

Maths Policy

'Mission Statement.'

We aim to provide our children with the highest possible standard of education, through quality teaching and learning, in a happy caring environment.

We will do the best WE can to enable our children to do the best THEY can.

This policy was approved by:	Full Governors
Date	Spring 2024-2025
Review Date	Spring 2026-2027

Intent

Maths
Intent Statement

Mathematics is an important creative discipline that helps us to understand and change the world. We want all pupils at Chapel End Primary School to experience the power and enjoyment of mathematics and develop a sense of curiosity about the subject with a clear understanding.

At Chapel End we foster positive 'can do' attitudes and we promote the fact that 'We can all do maths!' We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts through manageable steps. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems. At our school, the majority of children will be taught the content from their year group only. They will spend time becoming true masters of content as well as being able to apply new knowledge in multiple ways.

We will do the best WE can to enable our children to do the best THEY can.

Aims and objectives:

The aims and objectives of children learning Maths in primary school are to:

- become **fluent** in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- be able to **solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
- **reason mathematically** by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.

Implementation

The Curriculum

Organisation

- The organisation and lesson structure below apply to Years 1–6. EYFS teaching is described in the Early Years Foundation Stage section.
- Maths teaching and learning takes place daily for at least 60 minutes
- Every day begins with pupils practicing multiplication and associated division facts in Years 3-6 and Year 2 from the Spring term
- Every day begins with pupils practising numberbonds in Years 1+2.
- Opportunities Mathematical application are also delivered in other Curriculum areas such as graphing in Science and measuring in Design Technology.

Planning

- White Rose Maths is used as a basis for planning at Chapel End Primary School.
- The school has analysed White Rose long term plans and small steps and created bespoke medium-term plans that are contextual to the school.
- The school uses an agreed progression in calculation policy to support the planning of Mathematics.

Teaching and Learning

- Lessons are structures in a 5 parts:
    1. Fluency flashback- In this part of the lesson, children quickly recap on different areas of Maths that they have previously learned.
    2. Vocabulary- In this part of the lesson, pupils are introduced to the mathematical language that will be used in the lesson and discussions take place to ensure that the vocabulary is understood to prevent misconceptions and barriers within the rest of the lesson.
    3. Direct teaching- In this part of the lesson, the teacher teaches the specific knowledge and skills that the children will need to be able to solve problems within a specific area of Maths.
    4. Practise- In this part of the lesson, children have a chance to practise the new skills that have been taught to them.
    5. Application- In this part of the lesson, children are challenged to apply the knowledge and skills that they have practised to reason with and solve problems.
- The following mathematical concepts will be applied during each lesson, or over a series of lessons depending on the area of Maths being focused upon:
    - Fluency: knowing key mathematical facts, thinking flexibly, making connections, using efficiency
    - Representation and Structure: Knowing how to set work out in order to solve problems

- Variation: Knowing that problems can be given in different forms and be able to work with procedural variation and conceptual variation
- Mathematical Thinking: applying chains of reasoning to Maths Problems
- Coherence:The combination of the areas above link together to create 'coherence' in Mathematics.

Early Years Foundation Stage

In Pre-school, Nursery and Reception, mathematics builds the foundational knowledge children need for later learning. We prioritise secure understanding of quantity, number relationships, pattern and spatial reasoning, alongside confidence, curiosity and the language to explain ideas. Teaching follows the EYFS mathematics educational programme, supported by Development Matters as non-statutory guidance. The Early Learning Goals describe end-of-Reception assessment expectations; they do not limit the curriculum.

Curriculum progression and foundational knowledge

Early experiences in Pre-school include joining in number songs and action rhymes, noticing changes in small groups, matching and sorting objects, comparing amounts and exploring filling, emptying, building and fitting shapes. Adults name quantities, actions and relationships through responsive interactions and everyday routines.

In Nursery, children develop accurate counting of small sets, matching one number word to each object and understanding that the final number said tells us how many there are altogether (cardinality). They begin to recognise small quantities up to 3 without counting, connect quantities to numerals, compare groups and explore different ways to make small numbers. Children recognise, continue and create simple repeating patterns and explore shape, position and measures through practical experiences. Progression responds to what children understand rather than treating age bands as a checklist.

In Reception, we use White Rose Maths to structure planning and sequence learning in small steps. Staff adapt teaching and revisit earlier learning in response to assessment, so that children secure the knowledge needed for the next step. Children develop a deep understanding of numbers to 10, including how each number is composed, and connect quantities, spoken number names and numerals. They compare quantities, understand one more and one less, and explore adding, taking away and sharing through objects, stories and practical problems.

Subitising and number composition

Subitising means recognising how many objects there are without counting them individually. Teaching begins with very small quantities and builds towards recognising quantities up to 5 in Reception. Adults use fingers, dice, dot arrangements, five frames, ten frames and everyday objects, varying their arrangement so children attend to quantity rather than memorising one picture.

Brief, repeated opportunities help children recognise amounts accurately and explain what they see. Children also learn to notice smaller groups within a whole (conceptual subitising), for example seeing 5 as a group of 3 and a group of 2. Adults ask “What do you notice?” and “How did you see it?” Children repeatedly compose and partition numbers in different ways, developing part–whole understanding and increasingly fluent recall of number bonds to 5, including related subtraction facts, and some bonds to 10, including doubles. Understanding is secured through meaningful practice rather than speed tests.

Patterns shape space and measures

Throughout EYFS, children compare, sort and order, describe and extend repeating patterns, and explore the properties of shapes through building, puzzles and construction. Adults develop positional language and spatial reasoning, including turning, combining and separating shapes. Children compare length, height, mass and capacity and use the language of time in routines. Reception teaching also develops verbal counting beyond 20 and recognition of number patterns, including doubles, odd and even quantities and equal groups, through practical exploration.

Teaching practice and inclusion

Mathematics is taught through short, focused adult-led teaching, guided practice, purposeful play and daily routines, indoors and outdoors. Children revisit important knowledge frequently and apply it with different resources and in different contexts. Adults explicitly model mathematical vocabulary, including more, fewer, equal, altogether, part and whole, and support children to explain, demonstrate and check their thinking. Manipulatives and carefully chosen images make mathematical relationships visible; recording develops through objects, drawings, marks and numerals as appropriate to children’s understanding.

Staff identify and address misconceptions promptly, for example counting an object twice or believing a spread-out group contains more. Children who need additional support, including children with SEND, receive accessible resources, clear language, additional modelling and repeated practice in small steps. Challenge deepens understanding through explaining, finding another way and applying knowledge. Staff share practical ways families can support learning through games, stories, cooking and everyday counting.

Assessment and transition

Adults check what children know, remember and can apply through observation, discussion and practical activity. Assessment informs the next teaching step and timely support without requiring extensive written evidence. At the end of Reception, teachers assess Number and Numerical Patterns against the statutory Early Learning Goals as part of the EYFS Profile. EYFS and Year 1 staff share children’s secure knowledge, misconceptions and next steps so that subsequent teaching builds on these foundations.

SEND children

Within the daily mathematics lesson teachers aim to provide activities to support children who find mathematics challenging. Children with SEND are taught within the daily mathematics lesson and are encouraged to take part when and where possible. Where applicable children's Individual Profile incorporate suitable objectives from the National Curriculum and White Rose Maths and teachers keep these objectives in mind when planning work. When educational support staff are available to support groups or individual children they work collaboratively with the class teacher. The support teacher feeds back to the class teacher when appropriate to inform evaluations, assessment and future planning. SEND children also have the opportunity throughout the year to take part in appropriate Intervention programmes that support them further, fill in any gaps in their understanding and enable them to reach their full potential.

Academically More Able Children

More able children will be taught with their own class and stretched through differentiated group work and extra challenges. When working with the whole class, teachers will direct questions towards the more able (at their ability level) to maintain their involvement. In addition, children in Year 6 will receive extra 'booster groups' at the higher level to ensure that they are reaching their potential.

Assessment and feedback

- NFER termly assessments are used in Years 1-6 to measure attainment and progress in Maths.
- In Pre-school, Nursery and Reception, ongoing assessment draws on professional judgement and knowledge of the child, supported by Development Matters as non-statutory guidance. It is not used as an assessment checklist. Statutory EYFS Profile judgements are made against the Early Learning Goals at the end of Reception.
- The statutory Reception Baseline Assessment is completed within the first six weeks of a child starting Reception, in line with current requirements. It is separate from ongoing assessment used to plan teaching and from the end-of-Reception EYFS Profile.
  In EYFS, feedback is immediate, verbal and practical. Adults model and revisit ideas with children; written marking and correction routines below apply to Years 1–6.
- Within lessons, teachers give verbal and in-lesson written feedback to support learning.
- Teachers use a tick to indicate a question that has been answered successfully and a dot to indicate a question that has been answered unsuccessfully. Children will

always receive time to correct one dotted question or calculation before moving onto the next phase of learning in the next lesson.

- Teachers mark work in blue pen with children responding to marking in green pen or pencil.

Monitoring

- Progress and achievement in art will be monitored in the following ways:
  - EYFS monitoring includes the sequence of mathematical learning, adult interactions, opportunities within provision and children's understanding of foundational concepts. The mathematics subject leader and EYFS leader use findings to identify teaching and staff development priorities.
  - Year 1 – 6 monitoring includes:
    Autumn Term: Data analysis, book scrutiny, Learning walk
    Spring Term: Data analysis, book scrutiny, Pupil and staff voice
    Summer Term: Data analysis

Roles and responsibilities

Pupils

- It is the role of every pupil to engage with every lesson and '*DO THE BEST THEY CAN*'
- Children are responsible for presenting work to the highest standards possible.
- Children are responsible for responding to teacher feedback.

Teachers

- Use the wealth of resources, including those online to challenge their current class.
- Continue develop and broaden their own subject knowledge.
- Deliver lessons that are fun and offer a wide range of teaching and learning approaches tailored to specific areas of the experiment/create process.
- Provide children with opportunities to develop skills in the different areas of maths.
- Assess work and provide feedback that supports the development of learning.
- Review books and test data to ascertain the attainment and progress of each child within their class.
- Report attainment and progress to parents and support with learning at home by setting weekly and if needed, additional bespoke homework.
- Seek out CPD opportunities to improve their own subject knowledge.
- Report back to the co-ordinator, particularly regarding the need for additional resources.

Subject Leader

- Ensure progression in attainment from all year groups
- Monitor planning, teaching and assessment
- Teach demonstration lessons when appropriate
- Ensure teachers are familiar with the framework and help them to plan lessons
- Lead by example in the way they teach in their own classroom
- Prepare, organise and lead INSET, with the support of the Headteacher
- Work co-operatively with the SENCO
- Observe colleagues, when appropriate, with a view to identifying the support they need
- Purchase mathematical equipment that will raise attainment;
- Attend INSET provided by LA mathematics consultants and feedback important information to staff
- Analyse children's test results to measure attainment and improve mathematics within the school
- Inform and support parents
- Conduct an annual review of mathematics and the production of a report for the governors

Headteacher

- To ensure that the subject leader in undertaking their duties.
- To monitor attainment and progress and use this to plan the overall direction of the subject with the subject leader.
- To provide the subject leader with CPD to ensure that they are capable in their role.

Governors

- Receive annual reviews relating to the subject from the subject leader.
- Monitor that the Headteacher and subject leader are carrying out their duties effectively.

Impact

Through the application of this policy, we endeavour to give each pupil the best opportunity to understand mathematical concepts so that they can apply their knowledge and skills in real life situations. EYFS impact is seen in children's increasingly secure number sense, mathematical vocabulary, ability to explain and apply ideas, and readiness to build on this knowledge in Year 1. Evaluation considers progress from starting points alongside end-of-Reception outcomes.