



Maths Curriculum Statement

Intent, implication and impact of the Maths curriculum at Chapelford

Intent:

Maths is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, children should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time.

There are 3 levels of learning:

- Shallow learning: surface, temporary, often lost
- Deep learning: it sticks, can be recalled and used
- Deepest learning: can be transferred and applied in different contexts

The deep and deepest levels are what we are aiming for by teaching maths using the Mastery approach.

We intend to do this by:

- Ensuring our children have access to a high quality maths curriculum that is both challenging and enjoyable.
- Providing our children with a variety of mathematical opportunities, which will enable them to make the connections in learning needed to enjoy greater depth in learning.
- Ensuring children are confident mathematicians who are not afraid to take risks.
- Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement

Implementation:

Our implementation is developed through secure understanding of the curriculum and subject area.

Planning

1. **Long term:** National Curriculum – links made to other curriculum subjects where possible. Shared with parents through the website.

2. **Medium term:** Termly overview, up-dated termly in response to data and internal monitoring of teaching & learning. Planning sessions take place for each year group where the needs of the children are considered based on the most current assessment and monitoring

3. **Short term:** Daily lessons derived from a skills tracker which reflects prior knowledge which the children start the skills with. Gateway keys identify those skills which a child should have at the career stage and Mastery keys indicate those which need to be taught in order to achieve that year group's objectives. A pre-learning task at the beginning of every new skill supports assessment. Lessons include a clear lesson intention 'I can' which is differentiated to meet the needs of all pupils.

Daily lessons are taught in 3 parts: basic skills, main & plenaries and incorporate where necessary:

Concrete, pictorial, abstract

Objects, pictures, words, numbers and symbols are everywhere. The mastery approach incorporates all of these to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they've learnt.

All pupils, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

- Short term planning is supported by the use of the White Rose Maths Hub materials, our school calculation policy, NCETM and MRICH.
- Outside of the daily maths lesson, children are provided with opportunities to develop mental maths strategies and knowledge within arithmetic sessions daily.
- Weekly, children complete 'sticky mats' which revisits key learning objectives in a range of fluency and reasoning activities
- Post learning activities support assessment of where each pupil is at the end of the skill.

Teaching

'Quality first teaching' linked to teaching standards:

All teachers:

1. 'Know where their children are' through the use of concise summative assessment, prior learning, assessment, maths talk
2. 'Understand where their children need to be' through a secure understanding of year group expectations and/or pre key stage expectations and incisive, ongoing, formative assessment
3. 'Know how they are going to get them there' through the use of a range of strategies to promote independence, mastery and high expectations of ALL.
4. Effectively deploy adults, specifically during introductions and plenaries. Plan for progression during and between lessons.

Assessment –

1. Summative/reported - NFER
2. Standardisation (YR – Y6)
3. Summative/ diagnostic (where necessary) – White Rose, NCETM
4. Formative / ongoing – * See Marking, Assessment & Feedback policy
5. Prior & Post learning – informs future planning, demonstrates progress in books, celebrates effort and achievement.

Moderation:

1. In-house
2. Cross-school

All of the above will be monitored and discussed during pupil progress meeting and staff performance management.

Impact:

What impact has the above had on:

- Quick recall of facts and procedures
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics

A mathematical concept or skill has been mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

These will be assessed through: assessment, tracking, pupil progress meetings, performance management and moderation.