

Hovingham and St Hilda's Ampleforth C.E.V.C. Primary Schools Federation

Policy for Mathematics

At Hovingham and St Hilda's federation, we aim to equip children with the skills that will allow them to undertake mathematical activities confidently and successfully both in the classroom and the world beyond. Maths is perceived as a vital life skill as well as an academic pursuit.

The following policy reflects our values and philosophy in relation to the provision and teaching of mathematics in our schools.

Our aims

Maths teaching should contribute to the acquisition of life-long skills and promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion. Through our provision, we aim that children:

- Master and become confident in fundamental Mathematical concepts
- Are able to quickly recall key mathematical facts
- Develop a range of mental and written calculation strategies
- will be able to apply their mathematical knowledge to solve problems, including those with real-life contexts, by choosing the appropriate operations
- will leave primary school with an efficient, reliable, compact written method of calculation for each operation
- understand the importance of mathematical skills in everyday life and how they may apply their skills in the future
- develop an enjoyment of Mathematics

Achieving and Maintaining High Standards

Across the federation, we have developed a common approach to teaching Maths based on the following principals:

- A mastery approach to Mathematics*
- All teaching staff will follow the agreed school curriculum and calculation guidance.
- The importance of mental calculations is acknowledged, including rapid recall of number facts.
- Problem-solving and reasoning are key components of a child's Maths education
- Learning is deepened through questioning, exploring, and explaining.
- It is important to incorporate a range of teaching approaches into our lessons, together with appropriate differentiation.

Our planning and delivery of Maths Lessons

We use the White Rose Maths scheme of work as a basis for our medium- and short-term planning. The White Rose scheme firmly supports our mastery approach to Maths.

Maths lessons take place daily in each key stage. Lessons are direct, instructive, exploratory, and reflective with the whole class and with smaller groups.

In the Early Years Foundation Stage, Maths is underpinned by the Characteristics of Effective Learning. Child initiated learning opportunities are cross-curricular and children experience a wide range of open-ended tasks in their provision areas, both indoors and out. In the EYFS, Maths is also taught as a discrete subject.

From Year 1, and throughout KS1, mathematics continues to be taught as a discrete subject. In Key Stage 2, children are grouped according to age for most lessons. Across the key stages, Mathematical knowledge is applied and skills reinforced whenever relevant in other curriculum areas.

Our use of assessment

Assessment in Maths is viewed as part of the assessment for learning cycle. At the start of a new topic, pupils complete an elicitation task. This helps staff to understand pupils' prior knowledge and inform planning. An accompanying progression grid, which details learning objectives for the unit, is highlighted according to the elicitation task.

At the end of the unit, Key Stage 1 pupils then revisit their elicitation task to complete any questions they were previously unable to answer or were incorrect. Pupils in Key Stage 2 complete an end of unit assessment. Progression grids are then highlighted again to show the objectives that the child has achieved having completed that unit of work.

Learning objectives are shared with the children in every lesson. Children are regularly provided with opportunities for self/peer-assessment and improvement. Marking is developmental and children are provided with opportunities to evaluate and improve their work. Teachers monitor the acquisition of skills, knowledge and understanding through appropriate teacher intervention, observations and discussions with groups and individuals.

Assessment is diagnostic and designed to help identify gaps in learning, which can then be narrowed through subsequent lessons and interventions.

Equal Opportunities

The Maths policy firmly supports the equal opportunities philosophy of the schools and all children will have access to the Maths curriculum. Where necessary, adaptations will be made to the curriculum, to equipment and to resources to allow access to Maths for pupils with SEND, including provision for pupils that are exceptionally able in mathematics.

Maths Leadership

The role will include:

- Inspiring an exciting and creative approach to Maths teaching
- Supporting Maths teaching through advice, guidance, CPD and resources
- Sharing information acquired from courses or other sources that may be beneficial to staff
- Reviewing the Maths policy and monitoring its implementation
- Regularly evaluating the Maths scheme of work and amending as necessary
- Organising participation in Maths workshops and events
- Reporting to parents, governors and others when appropriate

Governors

Our governors will:

- be well informed through the leadership of the headteacher and mathematics coordinator
- support the staff in implementing the school's policy for mathematics
- monitor and review progress on the School Development plan

Pupils

Children are encouraged to:

- enjoy mathematics and see its relevance and application in real life
- develop confidence in selecting and using appropriate mental and formal calculation methods
- use mathematical vocabulary with confidence
- use their knowledge to solve problems, see patterns, make predictions, present information clearly, interpret data
- confidently give explanations of their methods and understanding

Parents

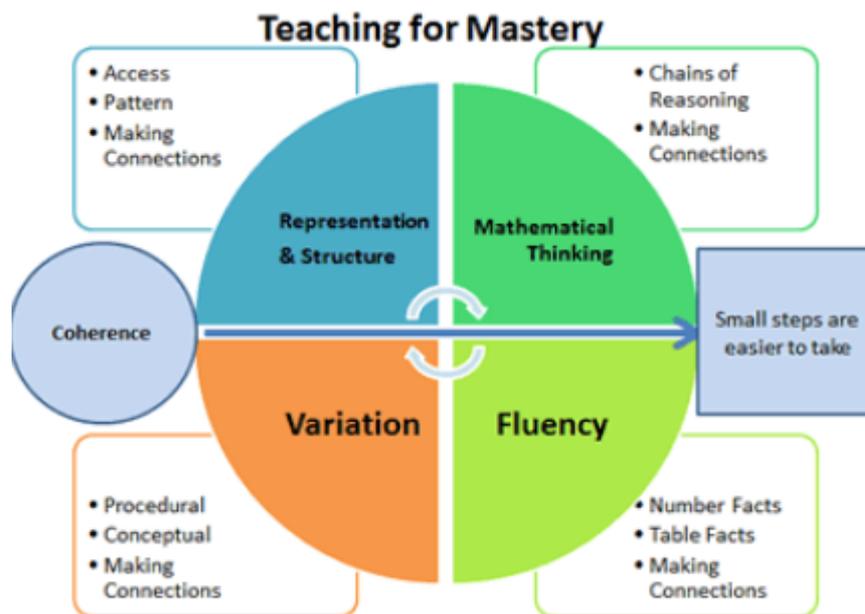
Parents are encouraged to:

- support their children in developing positive attitudes to mathematics
- support their children when homework is given
- remain well informed of their children's progress through annual reports and parent's evenings

*Maths Mastery Explained

At Hovingham and St Hilda's Federation, we teach a mastery approach to Maths. Mastery means that children gain a solid understanding of Maths that enables them to move on to more advanced material.

Five main ideas underpin teaching for mastery:



Source: NCETM

Coherence

At Hovingham and St Hilda's, we use the White Rose scheme of work as a basis for our planning and delivery of Maths. The scheme breaks lessons down into small, connected steps. These steps unfold concepts gradually, allowing children to explore, practise and master.

Representation

The way that we represent number helps children to gain an understanding of Mathematical structures. It allows children to access concepts, make connections and spot patterns in Maths. The aim of using representations is that pupils will internalise structures and representations of number in order to do maths without them.

Please visit the further document on representation on our school website to see the representations that we use.

Mathematical Thinking/Reasoning

To truly understand Mathematical concepts, children are encouraged to explain their reasoning. Reasoning questions may ask children to explain how they know, to explain how they worked something out, or explain why something is incorrect/correct.

Fluency

Fluency relates to how quickly a child can recall key Maths facts and how they apply them to different contexts.

Your child will work on their fluency at school not only through each Maths lesson, but also through the use of programmes such as Times Table Rockstars, Numbots, Numberblocks, Sumdog and Mathletics.

Variation

We talk about variation in several different ways in Maths. It can mean:

- Variation in the way that numbers and concepts are presented to pupils (see representation and structure)
- Variation in procedures used
- Variation in the application of Mathematical skills