

Mathematics Policy



2021-2022

At Huxley CE Primary we aim to ensure that children acquire a long-term, secure, adaptable understanding of mathematics. Our aim is to ensure pupils are secure in each element of mathematics before advancing onto the next. Due to the nature of our school offer, it is vital to ensure that the fundamental basics underpinning a good grasp of mathematics are embedded and secure before moving on.

Early Mathematics is crucial-these first few years of a child's life are especially important for mathematics development. Research shows that early mathematical knowledge predicts later reading ability and general education and social progress. Conversely, children who start behind in mathematics tend to stay behind throughout their whole educational journey (Aubrey, Godfrey, Dahl, 2006).

In our school, we focus on promoting:

- Small, coherent achievable steps throughout the lesson
- Variation – a balance between conceptual and procedural understanding
- Developing mathematical 'agility'- seeing connections and links between learning
- Fluency – application of efficient methods and flexibility in approach
- Representation and Structure – use of a range of ways both to represent a concept or non-concept, and to expose structures

Strategies to achieve this-

- Whole class/groups kept together
- All children can succeed
- Immediate on the spot intervention
- Conceptual and procedural variation
- Depth, not acceleration
- Emphasis on the structure and connections (pattern spotting) within the maths
- Concrete-pictorial-abstract
- Talk partners
- Rapid recall of facts

Lesson Design

Teachers strive to design lessons in which the pupils are carefully guided, step by step, through Mathematical fluency, reasoning opportunities and are given problems to solve. Lessons include rehearsal and automatic recall of facts. The lessons incorporate shared/paired discussion and time for thinking. Particular attention is paid to developing conceptual understanding in tandem with procedural competency. Children are challenged to explain their reason through problems, evaluate their work and to invent their own questions.

What do lessons look like?

- Small coherent steps in learning
- Quick response questions to sharpen focus and to practice previous skills.
- Maths discovery strategies are used to encourage children to talk through problems and suggest strategies for solving problems .
- Think and work together techniques - I do, we do, you do approach to working through questions. Ping pong problem solving is used.
- Different methods are explored, modelled and discussed to depth. Children rehearse, reason and refine. As much as possible LTHC (Low Threshold, High Ceiling) tasks are completed to ensure all children are engaged and learning and can create a 'no limits learning' culture
- SEND Personalised Provision

Pupils with a high level of special needs receive individual bespoke provision, set out in a personalised provision map. Their needs have been thoroughly discussed and agreed with the

SENDCo. In many cases, the children will be able to access part of the class learning. However, those children will have smaller steps of specific, targeted learning.

NCETM Curriculum Prioritisation

Both due to our children, the offer we provide here at Huxley and moving on from the pandemic we have chosen to recalibrate and prioritise our curriculum using the NCETM support materials.

Time Allocation

Our flexi schooled children access an hour each core day on mathematics. We also incorporate cross curricular mathematics across our topic and science sessions.

Our full-time children have an extra hour on top of this for mathematics on a Monday and Friday in very small focussed groups (between 4-8 children) These sessions often are cross curricular sessions with an SMSC or outdoor ed focus.

Teaching and Learning

Planning

The new National Curriculum 2014 forms the basis of teaching and learning. All children receive at least the minimum entitlement of a daily mathematics lesson.

Due to the nature of our school offer, teachers work towards independent learning and plan for different working groups to meet the needs of our wide ranges of abilities. Teachers employ a range of effective teaching strategies.

Teachers use the National Curriculum 2014 as a starting point for planning the delivery of maths lessons. This year, our teaching is focussed around GAP analysis of children's skills and support needs, due to many of our children not having attended school before. Teachers differentiate according to the needs of the pupils and use intervention programmes for targeted support.

Mathematics is encouraged and developed across our curriculum and links are made where possible. ICT is used where it enhances, extends and complements literacy teaching and learning. Additional adults are used to support the teaching of mathematics. They work under the guidance of the teacher with small groups of children or individuals.

Assessment, Recording and Reporting

Teachers use effective assessment for learning to ensure planning is based on prior attainment and that pupils know what they need to do to achieve the next steps. Group or individual targets are set accordingly. Marking and feedback is in line with the school marking and feedback policy. Class teachers keep records that enable them to deliver an effective, creative and relevant curriculum that builds on prior attainment and meets the needs of pupils. Individual next step profiles are used to help inform forward planning.

Staff Development

Teachers are expected to keep up to date with subject knowledge and use current materials that are available in school or online.

Training needs are identified as a result of whole school monitoring and evaluation, performance management and through induction programmes. These will be reflected in the School Development Plan. The mathematics Lead will arrange for relevant advice and information, such as feedback from courses or newsletters, to be disseminated. Where necessary, the mathematics Lead leads or organises school based training.

Additional adults who are involved with intervention programmes will receive appropriate training that may be school based or part of central training.

Resources and Accommodation

A comprehensive range of resources is available in school. Every class has a selection of mathematics resources to support a CPA model. All children have access and are exposed to manipulatives and symbolic representations as appropriate to the area of study/mathematical foci.

Monitoring and Evaluation

The Head teacher along with the two teachers monitor and evaluate mathematics. An additional nominated governor will also be part of the monitoring schedule for curriculum areas. Termly staff conference meetings and pupil progress meetings will enable discussion for ongoing monitoring and evaluation of provision.

Review

This policy will be reviewed Autumn 2022 or according to the School Action Plan.