



Holy Trinity Church of England (Aided) Primary School

Policy Statement

Maths Policy

The Best for Every Child - a Unique Child of God

At Cookridge Holy Trinity Church of England (A) Primary School we serve the community by providing a happy, secure and caring Christian environment where all are valued and respected. We pride ourselves on being friendly and welcoming. We believe in the uniqueness of the individual as a child of God and recognise the range of contributions that each can make.

We provide for the spiritual, emotional, physical, mental and social development of the whole child, as a child of God. We seek to foster self-esteem and instil a sense of responsibility to others and the world around them through the teaching of our Christian Values.

We are committed to the pursuit of excellence, and the school curriculum aims to offer all children a broad and balanced, relevant and differentiated curriculum which provides consistency and continuity of teaching throughout the school, enabling every child to maximise their potential.

We work in partnership with parents, the local church, the wider community and other schools to provide an education of the highest quality.

Written by: Anna Casling

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Policy Statement

Maths Policy

At Cookridge Holy Trinity Primary School, as an inclusive school, we aim to achieve the highest standards of Mathematics capable for all our pupils. We aim for pupils to leave Holy Trinity being aware that Mathematics is an integral part of everyday life. A high quality mathematics education provides a foundation for understanding the world, gives children the ability to reason mathematically and creates a sense of curiosity.

Mathematics also provides us with tools to;

- Tackle real life problems
- Communicate information
- Develop skills which are essential in other areas of the curriculum
- A lot of enjoyment can be obtained from appreciating the power of mathematics.

Aims for Mathematics

Holy Trinity are continually aiming to raise the standards of achievement in Mathematics of our pupils. Through our approach to teaching Maths we are providing all pupils with the opportunity to master the curriculum.

Our Mathematics curriculum aims to:

- provide a positive attitude to Mathematics by making it interesting, purposeful and enjoyable.
- develop an awareness of the relevance of Mathematics in the real world.
- enable pupils to become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems.
- enable pupils to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- ensure pupils can solve problems by applying their mathematics to a variety of problems, including breaking down problems into simpler steps and persevering in seeking solutions
- help pupils make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
- develop, use and understand the language of Mathematics at their own level and be confident when articulating Mathematical concepts.
- enable pupils to record their work in a clear and accurate way where the presentation is of a high standard and something they are proud of.
- develop the ability to think logically, reasonably and creatively in Mathematics.
- teach pupils to perform calculations mentally, using appropriate strategies.
- teach pupils to carry out written methods in-line with the school's Calculation Policy.
- develop pupils' ability to work both independently and collaboratively.
- provide opportunities to use a variety of equipment to stimulate and develop mathematical learning situations.
- enable pupils to achieve a sense of satisfaction through success.
- allow children to have fun!

Teaching methods and approaches

It is essential to have continuity and progression throughout the Mathematics curriculum so that it provides structure, purpose and meaning.

- The school currently follows the White Rose Maths Hub schemes of learning. These schemes provide each year with an overview of the strands to be taught. The schemes allow children to become fluent, reason and solve problems mathematically using a range of manipulatives.

- This provides flexibility, which allows teachers to be creative and develop professionally whilst at the same time, supports the less confident or newly qualified teachers. Our staff regularly access CPD from West Yorkshire Maths Hub.
- A balance between whole class, group and individual approaches in the teaching of Mathematics is used throughout the school, with an over-arching mastery approach so no child is left behind.
- In-line with our calculation policy, we use a concrete-pictorial-abstract approach to allow children to become independent learners and thinkers.
- Mathematics lessons often include elements of all / some:
 - Starting activity which may be a recap of a previous objective
 - focused group work and individual independent activities
 - time to review what children have learnt
 - teachers/ support staff working with individuals/ groups
 - children accessing resources./ using resources to aid their learning
- A balance of practical, investigative, oral and written activities (indoor and outdoor) is used throughout the school.
- Children are given opportunities for investigative work and problem solving, at all ages and levels, to develop their ability to apply their mathematical skills to real life situations
- A cross-curricular approach is used to provide first-hand experience wherever appropriate and this is referenced on teacher's planning and seen in books/ on displays.
- The children develop their mathematical language and reasoning through opportunities to question and explain their activities and in discussion with the teacher, support staff and each other adults.
- As a school, we have common high expectations and standards regarding both presentation and methodology in order to provide consistency and continuity. Children's recordings are encouraged to be:
 - neat and of a high standard
 - presented in a clear and organised way
 - presented in a variety of forms e.g. diagrammatically, graphically, pictorially, as a model or in written form.
 - reflective on learning that has taken place through the use of photographs, thought bubbles
- When recording their calculations, investigations and other mathematical work:
 - children are encouraged to formulate their own ways of recording their results in-line with the school policy
 - teachers are modelling the children's verbal explanations
 - teachers are demonstrating standard methods

Planning

Teachers plan from the National Curriculum from Y1 to Y6, and in EYFS from the statutory framework. Year group teachers plan together and consistency is established across year groups. Planning is monitored by the Maths Subject Leader and SLT and feedback is provided to staff. Programmes of study and lesson content are carefully sequenced, in order to develop a coherent and comprehensive pathway through the mathematics. Conceptual variation and procedural variation are used throughout teaching to present the mathematics in ways that promote deep, sustainable learning. Carefully devised exercises employing variation are used, providing intelligent practice that develops and embeds fluency and conceptual knowledge. Precise questioning and open questioning techniques are used by teachers and teaching assistants to continually assess and extend learning. A thorough understanding of children's needs is assembled through thorough effective assessment, and combined with high expectations and ambition for all children to achieve. Learning is broken down into small, connected steps, building from what pupils already know. Planning allows for children to begin the lesson revisiting and reinforcing prior learning. This approach ensures that the time available has maximum impact on children's learning in mathematics and appropriate learning behaviours enable children to make effective use of their lesson time. We follow the White Rose calculation policies for teaching methods for addition, subtraction, multiplication and division (from Sept. 2022).

Assessment

Short term

Children's classwork is assessed frequently through:

- regular marking
- analysing children's errors
- questioning
- discussion
- use of plenaries
- self and peer assessment
- end of unit assessments
- AfL questions within the daily classwork (Testbase, diagnostic questions, White Rose resources)

Medium term

In Years 1-6, children are assessed using the Chris Quigley Essentials Curriculum on depth of learning (based on objectives taken from the current National Curriculum). Each strand within the curriculum is shown with the appropriate objectives. Teachers regularly track children's progress once a particular strand has been taught. This information is updated throughout the year and is passed on to the following teacher as children move year groups. Termly assessments are carried out in each year using the White Rose arithmetic and problem solving tests. These assess the children's knowledge on all strands taught in that term. The progress is monitored by teachers and Senior Management Team at termly progress matters meetings.

On entry, EYFS make use of Reception Baseline Assessment which takes the form of a set of practical tasks carried out between the children and the teacher within the first 6 weeks of starting. Children's outcomes are shared via a short narrative outlining children's current maths understanding. The teachers assess the children's starting points through observations of play. At the end of each half term, the teachers assess children's progress in mathematics, identifying if children are 'on track' and 'not on track', their next steps and any barriers to learning. The Early Years Foundation Stage Profile is a summary of each child's attainment at the end of the Reception year based on what they have demonstrated they know, understand and can do. Attainment for each area is assessed against the Early Learning Goals and is described as either meeting the expectation level of development (expected) or not yet reaching this level (Emerging). The Foundation Stage Leader monitors the progress and attainments and moderates the judgements alongside other schools within the cluster.

Long Term

Long-term assessments are made against the National Curriculum objectives and children are judged at 'working towards the expected standard,' 'expected,' or 'working above the expected standard.' The following tests are also carried out annually

- SATs at the end of Y2 and Y6

Organisation and Time

In the Early Years Foundation Stage there is a daily mathematics adult led session which consists of adult led carpet input and practical activities where children apply their learning within pairs or small groups. Each week, the children access a Mathematics focus activity in groups of six with an adult. Manipulatives are used to encourage children to grasp on concrete understanding of the objective. In provision, the children have access to continuous maths resources within a specific maths area and problem solving is encouraged across all areas of learning, both indoors and outdoors.

Key Stage 1

In KS1 there is a daily mathematics lesson of between 45 and 60 minutes for all children in mixed ability classes. The mastery approach to our teaching – see lesson design - is used to meet the needs of all children. Teaching assistants are planned in to support particular groups with their learning in each maths lesson. Where necessary, SEN pupils receive bespoke mathematical intervention.

Mastering number – from September 2021 we embarked on the mastering number project, an additional daily 10-15minute Maths input in Reception, Y1 and Y2.

Key Stage 2

In KS2 there is a daily mathematics lesson of approximately 60 minutes for all children in mixed ability classes. The mastery approach to our teaching – see lesson design - is used to meet the needs of all children. Teaching assistants are planned in to support particular groups with their learning in each maths lesson. Where necessary, SEN pupils receive bespoke mathematical intervention.

Resources and Display

In our school we recognise the importance of a stimulating learning environment. Each classroom has a mathematical display area, which includes mathematical vocabulary, visual aids and interactive activities where appropriate. Manipulatives are available for children to access independently, as well as being guided by the teacher for specific tasks or challenges. There is a central store for larger resources such as weights and measuring equipment.

Computing

Mathematics is taught through computing where it is appropriate and where the use of computing enhances the teaching and learning. This could be using the laptops, the interactive whiteboard, iPads and voice recorders.

S.E.N. / Inclusion

At our school children with SEN in Mathematics are included in the daily mathematics lesson through:

- setting suitable learning challenges
- responding to children's diverse learning needs
- overcoming potential barriers to learning and assessment for individuals and groups of children

Interventions to enable inclusion may involve:

- grouping for teaching purposes
- additional human resources
- different curriculum and teaching methods
- different use of resources

Where the interventions involve spending some time outside the classroom, it will be in the context of the inclusive curriculum.

Equal Opportunities

At our school we believe that all children regardless of their gender, age, ethnicity, academic or physical ability are given equal opportunities to develop their attainment in mathematics to reach their full potential, confidently and successfully. We ensure that the specific needs of all pupils are met by providing tasks that are appropriate to the pupils' ability and that their learning is supported by good quality, relevant first hand experiences to consolidate and extend their mathematical learning. We make use of the Learning Village resource to support EAL learners access the age appropriate curriculum.

Staff Development

All staff are encouraged to develop, assess and improve their teaching of Mathematics.

Whenever possible we;

- encourage staff to attend mathematics courses
- make provision for the mathematics subject leader to work alongside colleagues in the classroom or shared areas
- provide school based INSET
- involve staff with policy and decision making
- provide the opportunity to learn from colleagues' expertise

Parents and Home Learning

Parents are involved in their children's learning of Mathematics through

- Mathematics home learning tasks (weekly)
- annual reports to parents with suggestions for how parents can help their children at home
- using learning logs to stimulate mathematical learning
- Maths stay and play sessions – parents are invited into school for a Maths session twice during the year to get involved and support children with their learning.

Links with the Governing Body

The Maths Co-ordinator meets with/presents to the Governing Body Curriculum during each academic year to inform them of current practice in mathematics in school, provide an update on the national and local picture, discuss progress and the outcomes of monitoring. There is an opportunity for governors to ask questions, followed by a learning walk to see mathematics in practice around school.