Kibworth CE Primary School

Let Your Light Shine

Matthew 5:16

Mathematics Core Policy

This policy was approved as follows:			
Adopted by:	**Advisory Board**		
Review Date:	**January 2026**		

Mathematics Policy

Rationale
This policy outlines the teaching, organisation and management of mathematics taught and learnt across Discovery Schools Academy Trust (DSAT).

At Kibworth CE Primary School we use the new National Curriculum for Mathematics (2014) as the basis of our mathematics programme.

Role of coordinator:

- To be enthusiastic about maths and demonstrate good practices.
- To work alongside colleagues in planning where needed (progress and activities).
- To work alongside teachers in the classroom (this will depend on release time and other available help).
- To coordinate and arrange staff in-service training as required.
- To audit resources,
- To manage the maths budget.
- To "sample" the work of children across the age range (curriculum monitoring).
- To review and evaluate the effectiveness of teaching and learning of maths
- To provide guidance on the implementation of the maths policy.
- To suggest appropriate assessment activities where needed.
- To provide support to those colleagues who request/require it, including help with planning and organisation.
- To monitor the planning and delivery of lessons.

Developing Mastery (Intent)
We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education. Our Mathematics curriculum reflects a greater emphasis on mastery of the key skills of mathematics to ensure children have adequate time to develop their fluency, reasoning, and deeper understanding before moving onto a new concept. Assessment for Learning, an emphasis on investigation, problem solving and the development of mathematical thinking and a rigorous approach to the development of teacher subject knowledge are therefore essential components to the schools approach to this subject.

AIMS AND PURPOSES OF MATHS (Let your Light Shine)

Children should:

- Develop secure mathematical concepts and skills according to their ability.
- Become fluent mathematicians with a solid understanding of the concepts in mathematics.
- Develop an ability to reason and problem solve.
- Progress and develop clear and logical thought.

- Learn to use and apply mathematical knowledge, skills and vocabulary in different contexts including everyday life.
- Learn that mathematics has meaning and relevance to their own lives.

Extra Curricular
Sub Commitee meets once a month with a focus of code breaking. This is for children across Key stage 2.

PLANNING, TEACHING AND MANAGEMENT (Implement)

The Foundation Stage
Maths is taught as part of the Area of Learning designated as 'Mathematics' in the EYFS Curriculum. The EYFS Curriculum is made up of two strands: Numbers and Shape, Space and Measure. The children will receive some whole class and adult led maths teaching and they have access to independent child initiated maths activities daily. Children are given opportunities to work on maths activities both indoors and outdoors. These activities are planned based on the main areas as outlined in the EYFS curriculum. EYFS staff also provide opportunities for the children to work on their maths targets both independently and as guided groups. As in the rest of the school, the Maths planned builds on previous learning and allows time for children to develop 'mastery' in the key areas of Mathematics without moving onto a new concept too quickly.

Planning is updated daily taking into account previous learning. This ensures the maths activities are appropriate and relevant to the children's learning needs and their interests. Maths activities in Continuous Provision are planned taking into account both the children's interests and curriculum coverage.

Key Stage 1 and 2

Planning
The New National Curriculum has several strands

- Number: number and place value, addition and subtraction, multiplication and division, fractions, percentages (Yr 5 & 6 only)
- Measure
- Geometry: properties of shape, position and direction
- Statistics (Year 2 onwards)
- Algebra (Yr 6 only)
- Ratio and Proportion (Yr 6 only)

Planning Key Stage 1 and 2
Short term plans are produced weekly by individual class teachers. These plans include opportunities to review, teach, practise and apply skills in all strands. Additionally short term plans include opportunities to work on non negotiable end of year targets and develop the children's arithmetic skills.

Teaching

Key Stage 1
In Key Stage 1 children have a daily mathematics lessons of approximately 60 minutes. Teachers in Key Stage 1 also plan and provide opportunities for children to use and apply maths knowledge and skills in other areas of the curriculum.

A typical lesson in Key Stage 1 consists of 3 main components. The timing and organisation of each component within a maths lesson may vary.

- **Oral / mental calculation**

This will involve whole-class or same ability group work to rehearse, sharpen and develop mental and oral arithmetic maths skills.

- **Main teaching and independent learning**

A short teaching input and lots of opportunities for pupils to calculate the problem or practise the skill, which will the use of CPA, between whole class, paired, grouped and individual work.

- **Mini plenaries and Plenaries**

These are a vital part of every maths lesson. It involves work with the whole class or small groups to identify and deal with misconceptions, summarise key facts and ideas, make links to other work and evaluate learning and progress and discuss next steps.

Key Stage 2-
In Key Stage 2 children have a daily mathematics session of approximately 60 minutes. Teachers in Key Stage 2 also plan and provide opportunities for children to use and apply maths knowledge and skills in other areas of the curriculum.

A typical lesson in Key Stage 2 consists of 3 main components. The timing and organisation of each component within a maths lesson may vary.

- **Oral / mental calculation**

This will involve whole-class or same ability group work to rehearse, sharpen and develop mental and oral arithmetic maths skills.

- **Main teaching and independent learning**

This will involve both teaching input and pupil activities with a balance between whole class, grouped, paired and individual work.

- **Plenaries and mini plenaries**

These are a vital part of every maths lesson. It involves work with the whole class or small groups to identify and deal with misconceptions, summarise key facts and ideas, make links to other work and evaluate learning and progress and discuss next steps.

Investigative Maths

Where appropriate within the learning journey, the children will be given the opportunity to solve/investigate problems in maths during a 'BIG Maths/Investigative Maths' lesson. It is an important part of the children's mathematical learning as the 2014 National curriculum states-

'The national curriculum for mathematics aims to ensure that all pupils.....become fluent.....reason mathematically..... and can solve problems.'

Therefore, at Kibworth through 'Investigative Maths', the teachers want to ensure all children will,

- Seek solutions, not just memorising procedures.
- Explore patterns, not just memorise formulas.
- Formulate conjectures, not just doing mathematical exercises.

These will be planned and will included a variety of skills-

- Recalling of facts and procedures.
- Stimulating different strategies.
- Depend on logic and reasoning.
- Multiple solutions.
- Demand decision making and creativity

In years 2 to 6, opportunities will be given to develop more open-ended differentiated types of problems, which will have greater potential for stimulating higher order mathematical thinking. This will ensure all children will be involved in searching for patterns and relationships between elements in the problem set.

More Able pupils and those with Special Educational Needs (SEN)

Our school provides a fully inclusive maths curriculum where teaching and learning is differentiated appropriately to meet the needs of all learners with challenge for all. Children may be streamed for maths sessions depending on the needs of the cohort.

SEN Provision

If a child has a specific difficulty relating to maths that is listed on their IEP, they may be given extra time or additional support with a teacher or LSA to address their specific needs and to support and develop their maths knowledge and skills accordingly.

More Able Provision

Where children are excelling in an area of maths, thy will be given further opportunities to deepen their understanding and apply higher order thinking skills through carefully planned tasks.

EAL Provision

Care is taken to diagnose when an error is caused by language proficiency or a mathematical difficulty. When language is the barrier to learning, mathematics is made

'clearer' and opportunities are provided to enable EAL pupils to engage with the learning and convey and develop their mathematical ability.

Intervention
Teachers plan for interventions for children in Key Stages 1 and 2. Class teachers use their knowledge of the children and various materials and resources to support children who are not working at age related expectations in maths. These interventions provide short term targeted support to move the children's learning forward and enable these learners to reach their full potential. These interventions are carefully tracked and monitored. For more information please see 'Intervention Policy'.

Marking children's work

In all year groups work should be marked in line with the 'looking for learning' policy.

Foundation-
In the children's books, each unit of work has a 'Looking for Learning' note, showing the main skill linked to the EYFS curriculum, with steps to success to achieve the target. Work which is marked is in line with the marking policy. The lesson objective will be displayed on screen and children will complete a book follow up activity.

Key Stage 1

Year 1-
At the beginning of a new unit of work, a 'Looking for Learning' page in the children's books shows, the key skill been taught, linked to the ARE's for Year 1, including steps to success. This is also displayed on the IWB and discussed with the children on the 'road to success'. Positive comments are made in green pen and are important to keep children's motivation and self-esteem high, although this does not need to be lengthy. Sometimes ticks in green and a house point could show the child how they have achieved according to the ARE being met. Written orange comments need to be given in child friendly language that enables the child to move their learning on. Orange comments can also be used to deepen their learning with questioning, or as a tool to reflect on the learning taking place.

Year 2-
At the beginning of a new unit of work, 'Looking for Learning' sheet in the children's books shows, the key skill been taught linked to the ARE's for Year 2, including steps to success to achieve the skill. At the end of a unit of work the sheet is highlighted by the pupil and the class teacher according to their progress and understanding. Positive comments are made in green pen and are important to keep children's motivation and self-esteem high, although this does not need to be lengthy. Sometimes ticks in green and a house point could show the child how they have achieved according to the ARE being met. Written orange comments need to be given in child friendly language that enables the child to move their learning on. Orange comments can also be used to deepen their learning with questioning, or as a tool to reflect on the learning taking place.

Key Stage 2-

At the beginning of a new unit of work, 'Looking for Learning' sheet in the children's books shows, the key skill been taught linked to the ARE's for the year group, including steps to success to achieve the skill. At the beginning of a unit of work, throughout and at the end of a unit of work the sheet is highlighted by the pupil and teacher, according to their progress and understanding. Positive comments made in green pen are important to keep children's motivation and self-esteem high although this does not need to be lengthy. Sometimes ticks in green and a house point could show the child how they have achieved according to the ARE being met. Orange comments need to be given in child friendly language that enables the child to move their learning on. Orange comments can also be used to deepen their learning with questioning or as a tool to reflect on the learning taking place. Children are encouraged to reflect on their own learning and others through, highlighting the learning objective, developing, mastering, deepening my learning and or writing purple comments linked to the skills taught and looking for learning behaviours.

ASSESSMENT – Impact (PRE AND POST INFORMING PLANNING)
Class teachers are responsible for assessing individual children's attainment in maths in line with the school's Assessment and Recording policy. Progress is reported to parents at least annually.
Use of the Ready to Progress statements are used to assess children on prior learning in order to build new learning. This may be using the White Rose pre and post assessment or by using Century.

Maths assessment happens in 2 forms:

- Formative – the day to day assessment that takes place continually and informs teacher's short term planning e.g. work samples, observation notes, successful learning grids.

- Summative – formal assessment that takes place at the end of a strand of learning or a whole year taking into account all evidence gathered through formative assessments e.g. work in books, end of unit reviews, end of term tests, SATS tests (Year 6)

The data from formative assessments is used to judge children's attainment at the end of each term or year.

Assessment records
Assessment records are kept by all class teachers and are recorded on 'one drive ' in the shared area, linked to the Age Related Expectations. In the first term teachers need to set a yearly target for each pupil based on their previous assessments in maths. Then regularly update the maths assessments on 'one drive', in line with the assessment policy.

Foundation Stage

Teachers continually update children's 'Learning Journeys' with observations, photographs and work samples in their journals, which details the children's progress in maths. In addition this is also recorded on the on line assessment tool, called, Tapestry.

In addition in Key Stage 1 and 2 teachers records may include annotated planning, notes on observations, photographs and written work recorded in maths books.

'Looking for Learning' in maths
Children are also expected to assess their own learning in maths. This can take different forms depending on the age and ability of the children.

Foundation Stage
Children are also encouraged to self-assess, through a visual display, 'Road to Success/Learning Line' and the children move their car on the road to success or place it in the appropriate coloured box, depending on their confidence level. The boxes are coloured in line with the RAG (red, amber, green) scheme.

Key Stage 1 and 2

Children articulate their understanding through, 'looking for learning' terminology to express how they feel about the skill been taught in maths. They are encouraged to confidently express how they mastered the skill or why they are treading water or drowning. In Key Stage 2 children also record their thoughts in purple in their maths books and peer mark other pupils work.

EXPECTATIONS
All pupils should be working at age related or above for each year group.
Please see attached Appendices.

MONITORING

The policy will be monitored and reviewed in line with the school's monitoring and review practices.

The work undertaken will be monitored and evaluated by the curriculum leader with responsibility for Maths. This will be in line with the school's monitoring and evaluation practice e.g. sampling teacher's planning, samples of work, discussion with children and observations.

Established by:	Maths Subject Leader	**Approved Gov:**	
Revised by:		**Last reviewed:**	
		Next review due:	