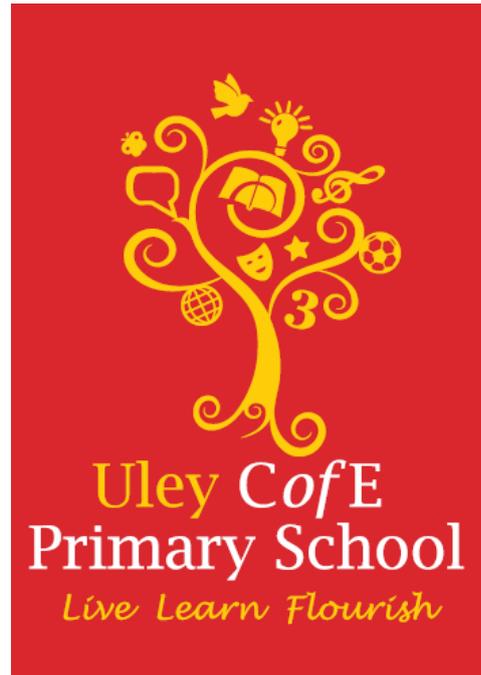


ULEY C OF E PRIMARY SCHOOL



MATHEMATICS POLICY

They are like trees that grow beside a stream that bear fruit at the right time and whose leaves do not dry up.
They succeed in all they do. Psalm 1:3

Our School Vision

Live – Learn – Flourish

- ✿ Live: at home, in school, and in our local community
- ✿ Learn: about self, others, and our ever-changing world
- ✿ Flourish: be the best we can be in all that we do

Our School Mission

- ✿ We give all – pupils and staff – the opportunities and encouragement to be the best that they can be
- ✿ We create an environment that has the right balance of challenge and support
- ✿ We deliver a curriculum that is right for our school, inspiring and motivating all, and embracing new ideas
- ✿ We apply our core Christian Values of Trust, Friendship, Compassion and Wisdom in all that we do
- ✿ We develop strong and effective partnerships between pupils, staff, governors, parents and the wider community
- ✿ We strive to ensure that all flourish within a moral framework built on Christian values and the Diocesan vision “I have come that they may have LIFE, and have it to the full”. (John 10:10)

ETHOS STATEMENT

We believe that everyone should be given the opportunity and encouragement to be the best that they can be. To this end, we strive to create the right environment, deliver the right content, and embrace new ideas. We apply our school values of trust, friendship, compassion and wisdom to enable every individual to flourish within a moral framework built on Christian values. We believe that this can only be achieved by developing partnerships between pupils, staff, governors, parents and the wider community.

INTRODUCTION

The Headteacher will have overall responsibility for the provision of the mathematics curriculum within the school. The day-to-day implementation of the policy is the responsibility of the maths subject leader. The policy will be reviewed every two years.

DESCRIPTION OF POLICY FORMATION AND CONSULTATION PROCESS

This policy outlines the teaching, organisation and management of Mathematics taught and learnt at Uley Primary School. The policy is delivered in line with the National Curriculum (2014) framework for Mathematics, and is implemented alongside the Mathematics Calculation Policy, which was updated and reviewed in 2017.

The policy has been reviewed and updated by the Maths lead (with discussion from staff) and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

GENERAL PRINCIPLES

Mathematics will be taught to all pupils throughout the school in ways appropriate to their ability. It will be taught as a single subject and in cross-curricular topics. The school Equal Opportunities Policy applies to the teaching of Mathematics, as to all other subjects. All pupils will be encouraged to challenge themselves to 'be the best they can be.'

AIMS

Mathematics is a tool for life. To function in society, we all need to be able to communicate mathematically. We must ensure that the children in our care leave our school with high standards of numeracy as well as literacy.

At Uley we teach mathematics so that our pupils develop their understanding and enjoyment of the subject, and this includes linking the subject where possible to concepts in our everyday lives.

In our teaching of mathematics at Uley, we hope to:

- inspire an enjoyment and love of maths
- ensure pupils are numerate and understand that maths is everywhere
- enable pupils to have opportunities for mathematical thinking and discussion
- encourage children to use mathematical language to help them with their reasoning and problem solving
- provide opportunities for pupils to demonstrate and use their mathematics
- give pupils opportunities to use mathematics in everyday situations
- help pupils to understand that mathematics is a powerful tool for communication
- instil confidence at using mathematics

- help pupils to be unafraid of and to be able to use new technology
- help pupils recognise that mathematics is a search for pattern and relationship
- instil a fascination for mathematics and the manipulation of numbers
- challenge pupils to 'be the best they can be'

PLANNING AND DELIVERY

At Uley the children enjoy a daily maths lessons, following the National Curriculum framework for Maths. Lessons follow a flexible three part structure, including a starter (direct teaching), main task and plenary. Lessons are flexible and adapted to meet the needs of children within the class. As part of the Mathematical lesson, the children have an opportunity to complete a range of fluency, reasoning and problem solving tasks to extend their mathematical thinking.

Mathematical activities/tasks may be taught through whole class, within year groups, groups of similar ability or within targeted individual groups depending on the individual needs of the class.

Every child in the school also participates in 'Rainbow Maths' tasks in the morning. The Rainbow Maths tasks are used to provide the children with an opportunity to practise their mental arithmetic/ and rapid recall skills - focusing on the mathematical areas of addition, subtraction, multiplication, division, fractions and decimals.

All the children will have opportunities to:

- work at their own ability level and have opportunities to challenge their mathematical thinking
- work in pairs and in small and large groups to reason and problem solve
- work practically
- work in the areas of number, measures, shape, space and data handling and geometry
- use a wide range of mathematical manipulatives to support their learning
- rehearse mental strategies and skills, through the delivery of Rainbow Maths
- complete investigations and make discoveries
- use ICT in lesson (through interactive games, ipads, times table songs) to support their learning in Maths
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The tasks or activities:

- will bring together different areas of mathematics: fluency, reasoning and problem solving
- will be balanced between those which develop knowledge, skills and understanding, and those which develop the ability to tackle practical problems
- will promote constantly the use of mental calculation
- encourage confidence in the use of mathematical manipulatives

- will involve both independent and co-operative work
- will encourage a positive attitude
- will be balanced between different modes of learning:
- should help children to develop their personal qualities, including:
 - motivation and willingness to 'have a go'
 - flexibility and creative thinking
 - perseverance, reliability and accuracy
 - willingness to check, monitor and control their own work
 - independence of thought and action
 - ability to co-operate within a group
 - systematic work habits
 - expectation to use a known fact to help work out unknown facts

When communicating their mathematics, pupils need to:

- understand what needs to be done in broad terms
- follow instructions
- discuss difficulties and ask questions
- debate possible courses of action with others
- use reference material as appropriate
- present and explain results to others
- discuss the implications and accuracy of the conclusions reached
- discuss other possible interpretations of the conclusions
- reason and justify their mathematical thinking through convince me and prove it style questions

CROSS CURRICULAR

Mathematics is used in other curriculum areas wherever possible or appropriate. This helps to expand and consolidate mathematical concepts and using maths in a purposeful way in everyday contexts helps the children to realise that mathematics is important in the real world. Teachers will seek to take advantage of opportunities to make cross-curricular links, particularly with links to Science and D.T. They will plan for pupils to practise and apply the skills, knowledge and understanding acquired through Maths lessons to other areas of the curriculum.

CLASSROOM ORGANISATION AND EXPECTATIONS

Classroom organisation for mathematics will be such that the children are encouraged to show independence in choosing the manipulatives needed for a task and to promote self-motivation/organisation.

We will endeavour to:

- ensure the environment is stimulating and supportive
- create challenging activities in which children can experience success

- value the achievement of each child
- build upon the knowledge and skills which children have gained formally and informally
- give the children mathematical experiences which match their ability and stage of development, are structured and maintain a good pace
- organise both collaborative and individual activities
- make clear to the children the purpose and relevance of any mathematical activity
- encourage independent use of a variety of manipulatives
- use maths in cross-curricular topics wherever appropriate
- help children reflect on each new experience
- ensure children meet the same mathematical ideas in a wide variety of contexts

Pupils with special educational needs and my plans

Teachers will aim to include all pupils fully in their daily mathematics lessons. All children benefit from the emphasis on oral and mental work and participating in watching and listening to other children demonstrating and explaining their methods. However a pupil whose difficulties are severe or complex may need to be supported with an individualised programme in the main part of the lesson.

EYFS

The development of mathematical thought is an important area of experience for children in the Early Years. Learning in mathematics should be primarily first-hand, experiential and active, bearing in mind the requirements of the Early Years Foundation Stage. Play and talk are essential to the learning process.

We recognise that some children will be ready to embark upon the National Curriculum during their time in Foundation. We need to be aware of this and ensure that such children undertake work that is appropriate to their ability.

Years 1 - 6

Pupils will follow the requirements of the National Curriculum (Curriculum 2014). Developing mathematical language, fluency, reasoning and problem solving should be delivered through all areas of Mathematics. Where possible, different areas of mathematics will be combined or taught also through other subject areas to show a continuous provision including measurement, handling data, time, shape and space.

Calculating skills should be developed in number and through work on measures and handling data, however will also be occasionally be taught discretely through arithmetic lessons/activities in KS2. Algebraic ideas of pattern and relationships should be developed in all areas of mathematics.

ASSESSMENT AND RECORDING

Assessment will take place at three connected levels: short-term, medium-term and long-term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Short-term assessments will be an informal part of every lesson to check their understanding and give the teacher information, which will help the teacher to adjust day-to-day lesson plans. Marking and oral feedback will be given to support the children's learning, following the school's marking and feedback policy.

Medium-term assessments in KS1 and KS2 will be delivered termly using the Rising Stars assessment tests during the school's assessment week. The questions are in line with the National Curriculum 2014 and follow the same structure as the National SATS for Yr 2 and Yr 6 by including arithmetic and reasoning papers for the children to complete. After completing the tests, teachers can use the MARK rising star tool, to analyse the test papers to identify any areas of misconceptions and form targets to support their teaching and planning. The results are also used by the Maths subject leader to analyse the progression of pupils across the school.

Long-term assessments will take place towards the end of the school year to assess and review pupils' progress and attainment. These will be made through compulsory National Assessment mathematics tests for pupils in Years 2 and 6. Teachers will also draw upon their class record of attainment, supplementary notes and knowledge about their class to produce an annual Summative Record for the child's next teacher.

Approved: June 2019
Next Review: March 2021